



UGANDA PROTECTORATE.

ANNUAL REPORT

OF THE

Medical Department

FOR THE

Year ended 31st December, 1936.

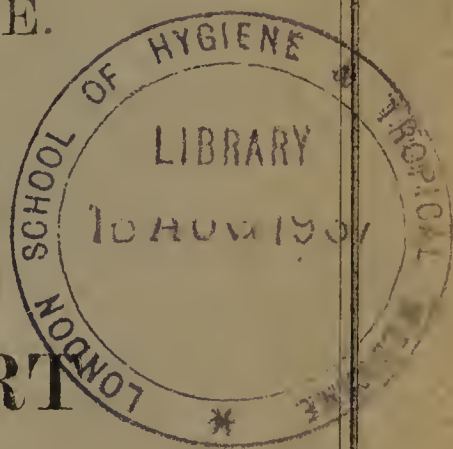
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Published by Command of His Excellency the Governor.

ENTEBBE:

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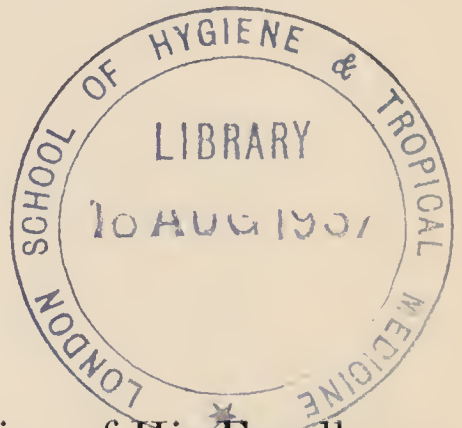


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MEDICAL DEPARTMENT,
HEADQUARTERS OFFICE,
ENTEBBE, UGANDA.

3rd March, 1937.



SIR,

I have the honour to submit for the information of His Excellency the Governor and for transmission to the Right Honourable the Secretary of State, the Medical Report on the Health and Sanitary Conditions of the Uganda Protectorate for the year 1936, together with the Returns, etc., appended thereto.

I have the honour to be,

Sir,

Your obedient servant,

W. H. KAUNTZE,
Director of Medical Services.

THE HONOURABLE

THE CHIEF SECRETARY TO THE GOVERNMENT,

ENTEBBE.

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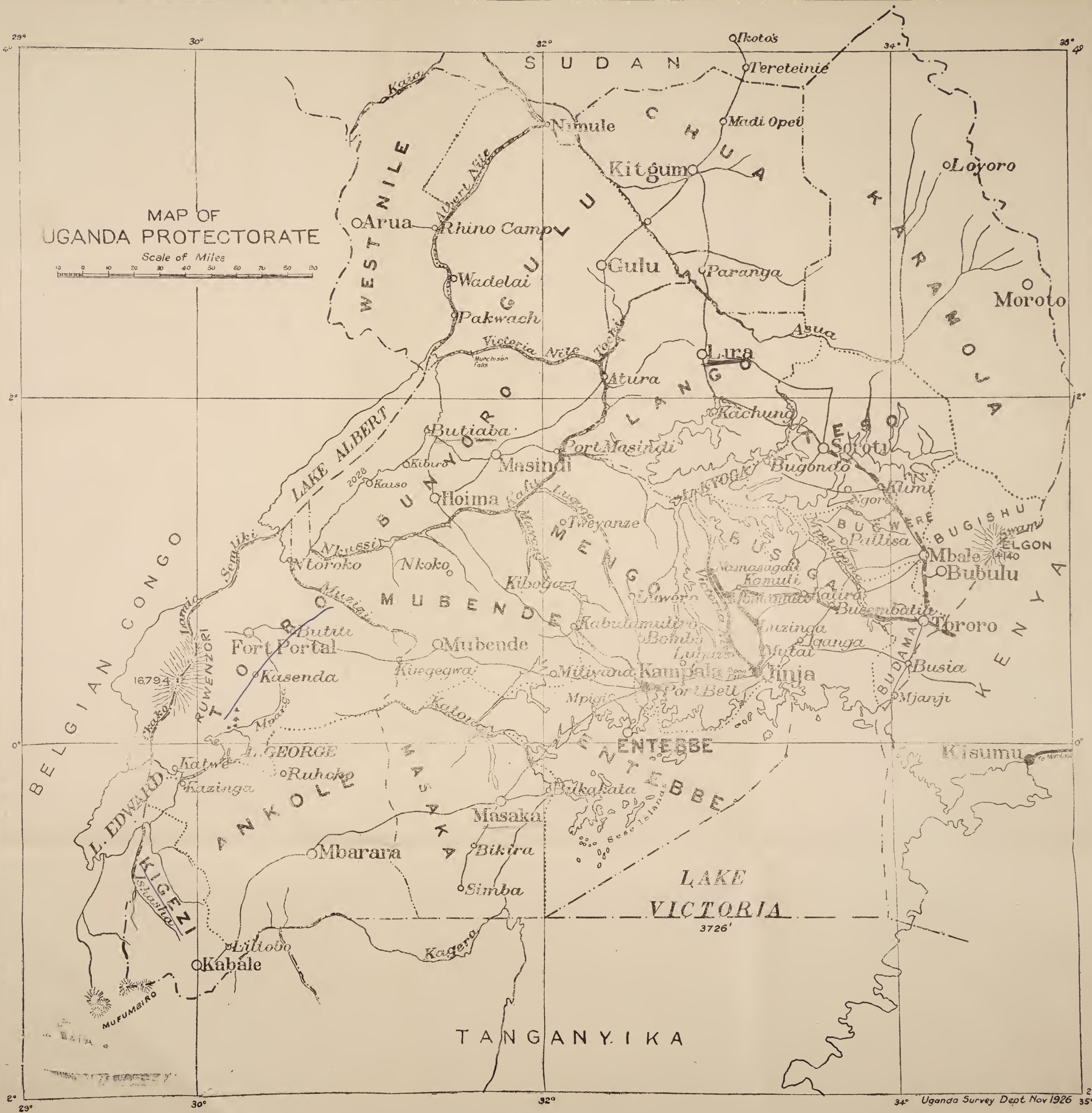
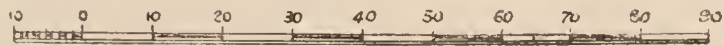
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MAP OF
UGANDA PROTECTORATE

Scale of Miles





MEDICAL DEPARTMENT.

ANNUAL REPORT

For the Year ended 31st December, 1936.

SECTION I.—ADMINISTRATION.

General Remarks.

During the year a slow but steady progress has been made on the lines indicated in the report for 1935.

2. The chief events of public health importance were:—

(1) the spread of small-pox into Uganda from the case referred to in the 1935 report and the successful suppression of the infection;

(2) the increased incidence of trypanosomiasis in the West Nile District;

(3) the arrival of a team of workers from the Rockefeller Foundation to encourage and carry out investigations into yellow fever in Eastern Africa and especially in Uganda;

(4) the Lango Welfare Show organised by co-operation between the Administration, Agricultural, Veterinary, Education and Medical Departments;

(5) the creation of a Joint East African Examining Board;

(6) the commencement of systematic training of Africans as sanitary inspectors;

(7) the preparation of a comprehensive list of requirements for hospitals and dispensaries, and for the improvement of sanitation generally in townships and trade centres under the scheme for the rehabilitation of assets;

(8) the laying down of sewers in Kampala.

3. *Small-pox* entered the Protectorate for the second time in December, 1935, and although the case was isolated immediately on discovery, the infection spread first into the neighbourhood of Kampala and later into the Masaka District, a total of 32 cases occurring. Compulsory vaccination areas were declared under the Public Health Ordinance by all local authorities around Kampala and by local and native authorities throughout the Protectorate and until the disease was completely stamped out a large proportion of the departmental staff was concentrated on vaccination.

4. Teams of vaccinators were allocated to each district and went systematically through the population dealing with those resident in one Gombolola at a time, commencing with those closest to main lines of communication and, therefore, most threatened. By the end of June, 66 per cent. of the population of Buganda Province, 31 per cent. of that of the Eastern Province, 45 per cent. of that of the Northern Province, and 25 per cent. of that of the Western Province were estimated to be protected. By the end of April, no further cases had been reported for over a month, and the danger of an epidemic was considered at an end. Unfortunately, owing to an outbreak of rinderpest in Mengo in August, the local authorities thought it inadvisable to carry out compulsory vaccination in those parts of Buganda Province not previously protected until the epidemic had ceased. Although the rinderpest epidemic is now under control it has not been found possible to re-start vaccination and two of the more thickly populated areas in this Province are still almost unvaccinated. Efforts to carry out vaccination campaigns in these areas will, however, be made in 1937.

5. The introduction of two cases of small-pox into Uganda in 1935 indicates clearly that the risk of small-pox being imported from foreign countries exists and although the control measures adopted in 1936 proved to be effective in controlling its spread, the country cannot always expect to get off as lightly as during this year, more especially in view of the large number of immigrants who enter the Protectorate yearly and wander round the country in search of work.

6. Meanwhile local authorities have been asked to ensure that in those districts where vaccination has been reasonably efficient, the protection of the area shall be maintained by the vaccination of all infants as soon after birth as possible.

7. Calf lymph has mainly been obtained from the Medical Research Laboratory, Nairobi, though some was kindly supplied by the Director of Medical Services, Tanganyika Territory. I would like to record our indebtedness to the Officer in charge of the Medical Research Laboratory, Nairobi, for the manner in which he met the unprecedented demands of this Territory for lymph.

8. *Trypanosomiasis*.—The main problem in connection with this disease has shifted from Lake Victoria to the River Koich in the West Nile District.

9. The Uganda shores of the Lake are now free of trypanosomiasis except around Mjanji where the Protectorate boundary adjoins that of Kenya. It is impossible to say whether the infection is kept alive here by immigrants from that Colony or whether it is acquired by residents visiting Kenya. In any case, seeing that the boundary is an artificial one cutting through a tribal area, it would be impossible to prevent people visiting relatives on the other side of the border.

10. The pass system for the control of natives coming from Tanganyika has been maintained, but it must be recognised that it is impossible to guard against the chance visit of a person with trypanosomiasis. Hence all those parts of the shores of Lake Victoria which are infested with *G. palpalis* are potential areas where at any time an outbreak of trypanosomiasis may occur. If we are to reduce the risk it is, therefore,

essential to reclaim as far as possible the lake shore from tsetse infestation. This is the policy which is now being followed, and under proper control it is proving successful. The conditions laid down are as follows:—

- (i) That a settlement shall consist of not less than 10 families.
- (ii) That, at first, all families shall congregate at one point on the lake shore and clearing shall be undertaken in both directions along the lake shore from that point, so that the forest will recede in proportion as the settlement advances.
- (iii) That the arrangements and supervision shall be the special concern of the Gombolola Chief.
- (iv) That sufficient clearing to afford complete protection from fly shall be completed within two months of the date on which each settlement is occupied.
- (v) That clearing on the foreshore shall not be less than 300 yards in length by 100 yards in depth.
- (vi) That no house shall be erected less than 100 yards distant from high-water level.
- (vii) That no house shall be erected closer than 100 yards to the forest on the flanks, *i.e.*, both edges of the clearings at right angles to the shore, provided that if in the opinion of the Medical Authorities this limit proves to be inadequate, it may at any time be increased.
- (viii) That no tall crops, such as banana or muhogo, shall be planted between the houses and the forest on the flanks or anywhere in the clearings, but cotton, beans, groundnuts and other small crops may be planted in these places. Tall crops shall only be planted on the side of the houses opposite to the lake shore, and none shall come within 100 yards of fly infested bush.
- (ix) Anybody proposing to settle on the lake shore shall first undergo a gland examination.

11. Part of the Lake shore has now been occupied under these conditions and to that extent tsetse infestation has been reduced, and it is hoped that by controlled re-occupation the whole of the Lake shore bush will be gradually rendered unsuitable for habitation by tsetse. It must be recognised, however, that this can only take place slowly, and any attempt to allow re-occupation except under controlled conditions might produce a more dangerous state of affairs than exists at present.

12. In the West Nile, this has actually come to pass and the movement of people with trypanosomiasis has resulted in the infection of a new river system which as far as we know was originally clean. During 1936, over 1,800 new cases were discovered in the West Nile District. It is believed, however, that this figure is due to a much stricter system of inspection and that it includes many cases that had previously escaped detection. The number of cases reported is alarming but there is room for optimism as recent inspections have shown a marked fall in the incidence of human infection. By intensive treatment of infected persons it is hoped to reduce the chances of tsetse acquiring re-infection, and at the same time by the making of rod or dumb-bell-shaped clearings, it is believed that the infestation of the river with tsetse will be reduced to a very large extent.

13. The comparative value of attempts to eliminate tsetse flies by handcatching or by debushing strips along the river bank between clearings is under examination in the Koich area. So far the balance of evidence is in favour of debushing, but the results are somewhat confused owing to seasonal changes, climatic conditions affecting greatly the density of "fly". There seems, however, no evidence that either method will eliminate the "fly" rapidly, and it may be that one is more suitable than the other according to local conditions. There is, however, evidence that there is a limit to the number which can be caught by hand in one day. This limit varies with the density, but once the maximum catch for a particular density of "fly" has been reached, increasing the boys employed in hand-catching seems to make no difference to the total "fly" caught. The officer whose reports are quoted above, has also obtained evidence that the rate of infection of "fly" with trypanosomes in this area is so high that it contradicts previously accepted views. Indeed it is so high that it suggests infection with two varieties of trypanosomes, an idea supported by the fact that the infectivity rate of the "fly" has not fallen proportionately to the human rate in the area. Though there is no reason to doubt the accuracy of these observations, it is not proposed to publish the figures until the evidence has been re-checked.

14. The only other area where trypanosomiasis is a problem, is the Busongora area in Toro District, but here the incidence has been gradually dropping. This year only 27 new cases have been recorded.

15. *Yellow Fever*.—In October, 1936, Dr. A. F. Mahaffy of the Rockefeller Foundation arrived in Uganda as Director of Yellow Fever Research. He was followed by Dr. Burke and a third assistant is expected shortly. The laboratory previously occupied by the Human Trypanosomiasis Institute has been taken over and as soon as the necessary alterations to the buildings are completed, research work will begin.

16. *Welfare Show, Lira*.—The Welfare Show held at Lira in the Lango District in November, is reported by all who visited it to have been the most successful of its kind held in the Protectorate. The co-operation of the Administrative, Agricultural, Veterinary, Education and Medical Departments made it comprehensive and it is believed that the lessons taught there will give a great impetus to the ordered and sanitary development not only of that district but of the Northern Province as a whole.

17. *Medical Education*.—It had been felt for some considerable time that the Governments of the other East African Territories outside Uganda should have a larger say in the standard, and in the subjects taught in the medical curriculum, more especially as students from these territories now attend the Mulago Medical School to receive their medical education. In 1936, a Joint East African Examining Board was appointed consisting of:—

The Directors of Medical Services, Uganda (*Chairman*),
Kenya,
Tanganyika,
Zanzibar.

The Director of Education, Uganda, and
The Principal of the Medical School.

In August, the Board held its first meeting at which draft Regulations

controlling the examinations in the medical curriculum were formulated. One of the most important decisions made by the Board was to extend the period of clinical instruction from two to three years. Unquestionably, this is a wise step, for the main criticism of the work of the students has been that they are weaker in the practical side of their subjects than in the theoretical. With an additional twelve months in which they will be enabled to get greater experience in the wards of Mulago Hospital, it is hoped that at the next final examination this criticism will no longer be true.

18. *The training of Africans in the duties of a Sanitary Inspector.*—In January, the Instructor of Hygiene began the systematic training of Africans to be employed as Health Orderlies or African Sanitary Inspectors and at the close of the year had completed the first year course. The examination papers set were of a high standard and the boys trained showed that they had grasped fairly effectively the responsibilities and duties that might be expected of them. Their training will be continued for another year, eight months being spent working under district medical officers assisted by an European sanitary inspector in district field work and four months in further instruction under the Instructor of Hygiene. It is hoped that it will be possible to arrange for Africans trained by this Department to sit for an examination held under the auspices of the Royal Sanitary Institute and that this examination will be a joint one for all the East African Territories conducted by a Joint Examining Board.

19. *Rehabilitation of Assets.*—During the year, on the instructions of the Governor, a comprehensive list was prepared of the buildings that would be required at the existing and projected district hospital units during the next five years, and of departmental recommendations for the ordered development and sanitation of the various townships in the Protectorate. The report submitted was very carefully prepared and Government now has a record of departmental proposals for development. These proposals were placed before a Committee specially appointed to consider the Rehabilitation of Government Assets and it is expected that a start will be made during 1937 to give effect to some of the proposals, the programme being continued during the following four years.

20. *Kampala sanitation.*—It is pleasant to record that during 1936 a start was made in laying down sewers in the commercial areas of Kampala. Only part of the scheme originally prepared by Messrs. Howard Humphreys is at present to be undertaken, but there is reason to believe that when this is completed, sewers will be extended into the other areas included in the original scheme. A very considerable proportion of the nuisances found in Kampala is due to the absence of effective drainage and with the introduction of sewers Kampala should become a cleaner and, therefore, a healthier township.

21. *Cerebro-spinal meningitis.*—Early in the year, a Senior Medical Officer was sent to Ruanda to investigate the method of vaccination which is being practised in that territory by the Belgian Medical Authorities and to report on the possibilities of introducing prophylactic inoculation into this country. His investigations showed that to give satisfactory protection three inoculations to each individual at intervals of one week were required. This made it impossible to introduce this

method of protection here and the control measures which were described in the Report for 1935 have been continued. Returns received from the Belgian Congo indicate that, up to the end of November, 1936, 769 cases with 279 deaths occurred in Ruanda, whereas in Uganda only 360 cases with 130 deaths were reported. From these figures it seems that a policy of individual segregation is at least as successful as a policy of prophylactic inoculation.

22. *Tropical ulcer*.—A great deal of work has been done in testing various methods of treating tropical ulcer. Cases of this disease are a source of great inconvenience in hospital because so many come from such long distances that it is necessary to retain them as in-patients as long as daily dressing is required. Various treatments which have had for their object either more rapid healing of the ulcer or the necessity for less frequent dressing have been tried but so far no method has proved entirely satisfactory. Doubtless Elastoplast would enable treatment to be given at longer intervals but unfortunately it is too expensive to be used on any large scale in native practice. The most effective dressing up to the present seems to be the application of camphor liniment after the removal of all necrotic tissue by a magnesium sulphate powder dressing or by scraping.

23. In connection with tropical ulcer it is pleasant to record that the North Persian Forces Memorial Medal was awarded to Dr. Forbes Brown in 1936 for his paper on this disease.

24. *Trachoma* continues to cause grave anxiety. Medical officers in all districts report an increase of the condition, but it seems difficult to develop measures which have a reasonable chance of success in controlling infection. Special attention is being given to this disease in schools and medical orderlies working at dispensaries have been shown the signs of the disease and its treatment.

25. *Public health administration*.—One of the most important measures in relation to the administration of public health was the passing of the Public Health Ordinance in October, 1935. While dealing specifically with certain public health matters such as action against formidable infectious disease, vaccination, abatement of nuisances, etc., the new Ordinance is largely an enabling one giving power to make rules concerning matters relating to public health. During 1936, the first rules under the Ordinance were issued and dealt with notification and control of infectious diseases, the Infectious Diseases Ordinance, 1922, being then repealed as all powers given by it were covered by the new Rules.

26. Legislation dealing with the control of food supplies and vendors of food is in course of preparation, and new draft building and drainage regulations have been framed, but it is still uncertain whether they will be introduced under the Townships Ordinance or under the Public Health Ordinance.

27. The various rat-proofing regulations scattered through the Rules made under the Factory and other Ordinances have been consolidated and simplified into one set under the Public Health Ordinance, but these have still to be submitted to the Central Board of Health for approval. Regulations to ensure the production of reasonably clean milk at dairies are also projected.

28. New Rules under the Masters and Servants Ordinance were drafted in 1935, and after considerable pruning were published for general information. They met with great opposition from employers of labour who objected to the clauses relating to housing, diet and hours of work. After a meeting between representatives of Government and of employers, the Rules were referred for consideration to the Central Board of Health, the membership of which was increased temporarily to include representatives of industrial and agricultural undertakings. Two meetings were held in June, and a certain number of amendments agreed upon. Final decision on clauses in dispute was postponed pending the report of an officer of the Provincial Administration who was appointed to enquire into the supply of labour. As this report had not been received by the end of 1936, no further progress could be made. The main matters now in dispute are the quality and quantity of the diet which must be given; whether all or only some of the employees should be fed; and whether food should be cooked by persons engaged solely for that purpose by the employer or issued raw and cooked by the employee himself at the end of his day's work. It is a common practice to offer a labourer Shs. 10 a month with rations or Shs. 12 a month without rations. As a large proportion of the labour employed in the country is from Ruanda, and these men only come to earn enough to pay their taxes and to do this in the shortest possible time, it is natural that they should prefer to take Shs. 12 a month without rations, hoping to live, or rather half-starve, on Sh. 1 a month. One of the criticisms of the new Rules is that the suggested diet costs Shs. 6 to Shs. 7 a month. This diet only contains some 3,400 calories, and is only just adequate under the standards set out in a pamphlet issued by the Health Organisation of the League of Nations entitled "Report on the Physiological Bases of Nutrition", for a man doing moderately hard work. It is, therefore, obvious that if Shs. 2 really represents the sum which the employer spends on food, it is inadequate to provide a reasonable diet, while if it represents only part, the employee who accepts Shs. 12 a month without rations must find the balance from his small wage or be inadequately fed. The efficacy of the Masters and Servants Rules is dependent on the employer being required to provide a definite ration or its real cash equivalent to those employees who are not rationed.

29. One of the difficult points which has arisen in the course of the discussions relates to labour recruited locally. It is obviously illogical to require an employer to house men whose homes are adjacent to the factory, but it is difficult to frame a rule in such a way as to allow labourers recruited locally to live in their own homes, without at the same time providing a loophole for the employer or manager to evade the provision of housing for any of his employees on the ground that they are locally engaged. If the employer is not compelled by law to make certain that all his employees are local residents with actual homes in the vicinity of the factory, the majority of his labour may be found inhabiting little beehive grass huts erected on any piece of ground adjacent to the factory, or renting equally undesirable houses from neighbouring native landowners who are always ready to profit by the economic necessity which forces factory employees to find shelter somewhere in the neighbourhood of their work.

30. One of the problems in public health administration with which the Department is faced is the growth of insanitary housing conditions in trading centres and particularly in the neighbourhood of Kampala. Centres outside Buganda can be dealt with fairly easily because they are on Crown Land, are let on temporary occupation licences and are, therefore, compelled to comply with the requirements of the health officer if the holders of the licence do not wish to have it cancelled at the close of the year. In Buganda, however, the problem is more difficult, for the land is in native occupation and the leases of the plots on which the trading stores stand are given by native landowners who, so long as the rent is paid, have no interest in the way in which the plot is kept. Almost without exception the plots are unsurveyed and the leases are for one year only. As the land in one trading centre may be in the hands of several landowners, the arrangement of plots is usually chaotic. In the larger centres no thought has been given to means of access to the back of the plots or to the necessity for maintaining building lines, and at the present stage of native education it cannot be expected that Africans generally should realise the need for town planning. One of the remedies suggested is to require the trader to produce evidence that he is in possession of a lease of a surveyed plot of a statutory minimal size before he can get a licence to trade. Any landowner who is leasing plots for trading purposes will be required to produce a plan showing the suggested lay-out of the area, the intended plots, their frontage on to a main road, and the roads of access he proposes to make.

31. In the immediate neighbourhood of Kampala, land has become extremely valuable owing to the large number of natives now employed in the township, and landowners are continuously dividing their lands into smaller and smaller plots making no provision for roads of access or for drainage. There is reason to believe that the native rulers of Buganda realise as clearly as ourselves the dangers of uncontrolled exploitation of the land and would willingly take steps to end it if they could find an acceptable method of doing so. To aid them in their task draft Rules under the Public Health Ordinance entitled "The Public Health (Development in Townships and Minor Settlements) Rules, 1937", have been prepared.

32. One of the difficulties to be faced is on the one hand the desire of the native to build a better house and on the other the inadequacy of his capital to finance anything really adequate to his needs. Some method of granting him financial assistance will have to be devised and native administrations might find this a profitable way in which to invest their surplus funds. Possibly also co-operative building societies will grow up as the African learns to appreciate living under better conditions. One way in which we can help him in this matter is to introduce him to cheap but efficient methods of house construction.

33. For the past four years great attention has been paid by officers of the Department to the hygiene of school buildings, many of which until recently were far from conforming with the recognised standards for such institutions. A frequent anomaly was the complete absence of sanitary accommodation for the scholars, although much time in the school curriculum was devoted to the teaching of hygiene. Unfortunately this anomaly still exists in many sub-grade and bush schools, but in

most of the secondary schools and in the larger primary schools latrines are now provided, though in some cases they are not as satisfactory as is desirable. However, it is to be hoped that the advance which has been made will be maintained.

34. As regards lighting and ventilation, school-rooms often fall short of ordinary standards but again considerable progress has been made in this direction and it is the exception rather than the rule now to find school-rooms in primary and secondary schools deficient in these respects.

35. Perhaps the most general faults in schools have been in connection with dormitories, these being almost always deficient in lighting and ventilation, and frequently overcrowded. Naturally, where light is insufficient—sometimes even when it is not—the rooms are not kept in the state of cleanliness which might reasonably be expected.

36. The attention paid to school hygiene has gradually led the managers of schools to realise that criticisms are not intended to be destructive, but helpful, and that only the minimum standards which are requisite if school-children are to be kept reasonably healthy, are being demanded. The changed attitude which has come about recently is evident from the sympathetic way in which the elementary sanitary requirements for schools embodied in the draft School Health Regulations were discussed and finally adopted by the Advisory Council on Native Education in June, 1936. These are printed in Appendix III to show the standard now in force. Although the school managers were inclined to look with suspicion on regulations laid down in black and white, they soon realised that they were as much a safeguard to them from the overzealous as a measure by which their deficiencies could be estimated.

37. *Water supplies.*—Sanitary Inspectors have continued during the year to assist Native Authorities in the improvement of rural water supplies and in view of the fact that the protected supplies have now become so popular it is hoped that the Public Works Department will take over the responsibility of training Africans to continue this work. The duplication of the pipe line for Kampala was commenced during the year and Government has approved of the provision of a piped supply for Entebbe in 1937 to be followed by a similar scheme for Mbale.

38. *Ante-natal and child welfare.*—The appointment of European nursing sisters to every district hospital in the Protectorate, except Tororo, Mubende, Gulu, and Arua has made it possible to develop ante-natal and child welfare work to a large extent and the popularity of this department's activities is indicated in the following figures which show the numbers attending for ante-natal and post-natal care:

1932	..	..	..	..	8,644
1933	..	..	..	..	14,316
1934	..	..	..	..	15,857
1935	..	..	..	..	29,517
1936	..	..	..	..	37,607

39. It has also been found possible during the year to carry out medical inspections of school children. In Busoga a Senior African Medical Assistant has been specially employed throughout the year as school Medical Officer and has inspected in a routine manner fifteen schools. His reports indicate a very large amount of preventable disease

which it is hoped will gradually disappear with the improvement in the child welfare clinics. Nevertheless the results found in Busoga indicate that there is a great need for the extension of school medical inspection and the treatment of the children in schools.

40. *Research work.*—The buildings in which the laboratory is housed are not designed for research work of any elaborate type. The staff is intended to maintain the ordinary routine laboratory services of the Department.

41. During the year Dr. Loewenthal and two members of the Agricultural Department were engaged in conducting a nutritional survey in Teso the results of which have been published as a Government paper entitled “An Investigation into Health and Agriculture in Teso, Uganda”. I would refer to two particular points in this investigation. The first is the fact that one family which possessed ample means in the way of land and animals, was so outstandingly superior to all other persons seen in the village as to require its exclusion from the statistics given. The medical officer stated that all the families which were healthy by the index he had selected must be considered as suffering from dietary deficiency if comparison were made with the excluded family. He mentions particularly the general well-being and the mental alertness of this family compared with their neighbours.

(A) Staff.

42. Principal Appointments, Promotions, Changes, etc.:—

APPOINTMENTS:—

Miss R. A. Bagot, to be Lady Superintendent of Nurses	..	..	1- 1-36
Mr. J. S. Cashmore to be Office Superintendent	..	..	26- 1-36
Mr. F. E. Weaver to be Sanitary Inspector	..	..	24- 1-36
Miss R. Walpole to be Nursing Sister	..	..	7- 3-36
Miss A. Beecroft to be Nursing Sister	..	..	19- 3-36
Miss E. M. Walton to be Nursing Sister	..	..	4- 4-36
Miss C. M. Guthrie to be Nursing Sister	..	..	14- 5-36
Miss C. Burton to be Nursing Sister	..	..	14- 5-36
Miss B. A. Priestly to be Nursing Sister	..	..	27- 6-36
Dr. W. Barnetson to be Medical Officer	..	..	25- 7-36
Dr. D. G. Snell to be Medical Officer	..	..	1- 8-36
Miss J. H. E. Cook to be Nursing Sister	..	..	7- 8-36
Mr. A. S. Brown to be Assistant Superintendent and Dispenser	..	..	1- 9-36
Miss D. Morrison to be Nursing Sister	..	..	19- 9-36
Miss K. E. Howard to be Nursing Sister	..	..	1-10-36
Mrs. A. M. Thomas to be Nursing Sister	..	..	1-10-36

ACTING APPOINTMENTS:—

		<i>from</i>	<i>to</i>
Dr. R. Y. Stones, C.M.S. Hospital, as Ophthalmic Specialist		16-9-35	.. 5- 5-36
Mr. C. Jacobs, European Clerk, as Office Superintendent, Medical Department		11-1-36	.. 18- 5-36
Mr. F. E. Weaver, Sanitary Inspector, as Instructor of Hygiene		31-8-36	.. 31-12-36
Dr. N. J. Willans, Bacteriologist, as Senior Bacteriologist		1-6-36	.. 31-12-36
Dr. A. J. Boase, Medical Officer, as Medical Superintendent, Mulago		4-6-36	.. 31-12-36
Dr. R. S. McElroy, Medical Officer, as Senior Medical Officer		1-1-36	.. 31-12-36
Miss G. R. Ibbs, Nursing Sister, as Senior Nursing Sister		15-6-36	.. 31-12-36

RETIREMENTS:—

Mr. H. T. Bott, Office Superintendent	..	..	25- 1-36
Rai Sahib Achhru Ram, M.B.E., Civil Surgeon	..	..	14- 5-36
Miss Brittain, Lady Steward	..	..	7-10-36
Mrs. M. Turton, Senior Bacteriologist	..	..	24-12-36

DEATH:—

Omw. J. M. Siryegana, Senior African Medical Assistant 27- 6-36

HONOURS:—

Miss R. A. Bagot, Lady Superintendent of Nurses, to be a Member of the Most Excellent Order of the British Empire (Civil Division).

Dr. A. F. Brown—Awarded the North Persian Forces Memorial Medal.

To be a Serving Brother of the Venerable Order of the Hospital of St. John of Jerusalem in England:—

Dr. J. P. Mitchell, O.B.E.

Dr. R. Y. Stones, M.C.

43. (B) List of Ordinances affecting Public Health, etc., enacted during the year.

Lunacy (Amendment) Ordinance, 1936.

Dangerous Drugs (Amendment) Ordinance, 1936.

Infectious Diseases (Repeal) Ordinance, 1936.

Public Health Ordinance, 1935.

Plague (Infected Areas) Rules, 1936.

Public Health Ordinance, 1935.

A Proclamation concerning Aircraft.

Public Health Ordinance, 1935.

Notifiable Diseases Rules, 1936.

Legislation affecting Public Health is considered by the newly-constituted Central Board of Health which held its first meetings in 1936.

Registration of Medical Practitioners and Dentists.

44. The Ordinance governing registration came into force on the 1st July, 1913, since when and up to the 31st December, 1936, the following have been placed on the registers:—

Registered Medical Practitioners	..	..	..	186
Registered Medical Practitioner and Dentist	..	..	..	1
Dentists	..	..	..	8
Licensed Medical Practitioners	..	..	..	100

45. The numbers actually on the registers on the 31st December, 1936, were as follows:—

Registered Medical Practitioners	..	..	..	94
Dentists	..	..	..	8
Licensed Medical Practitioners	..	..	..	42

Registration of Midwives.

46. The Ordinance governing registration came into force on the 31st March, 1927, since when and up to the 31st December, 1936, the following have been placed on the register:—

Europeans and Asiatics	..	..	..	..	91
Africans	..	..	..	..	229

47. The numbers actually on the registers on the 31st December, 1936, were as follows:—

Europeans and Asiatics	..	..	..	..	69
Africans	..	..	..	..	220

(C) Financial.

48. The expenditure on medical services during the year was £164,765 9s. 6lcts. which represents 9·6 per cent. of the total revenue of the Protectorate.

The total revenue of the Department was £11,238 18s. 94cts.

SECTION II.—PUBLIC HEALTH.

(A) General Remarks.

49. *Establishment.*—The establishment of medical officers was increased from 30 to 31; of nursing sisters from 20 to 25; of laboratory assistants from two to three; of Asiatic nurses from four to five, and of Senior African Medical Assistants from 22 to 28. On the other hand, the post of Asiatic Civil Surgeon was abolished, and the number of sub-assistant surgeons reduced from 15 to 12.

50. *Returns of the year.*—The following table compares the figures for the last five years:—

	1932	1933	1934	1935	1936
New Cases (excluding examinations) ..	684,835	743,719	831,240	906,486	973,478
In-patients ..	24,072	30,185	33,200	33,805	31,077
In-patients days ..	439,639	493,481	462,802	464,673	431,601
Total attendances ..	3,016,851	3,045,074	3,209,315	3,139,985	3,094,829
Surgical operations ..	3,514	4,908	4,796	4,443	5,433

51. *Cases by Races:*—

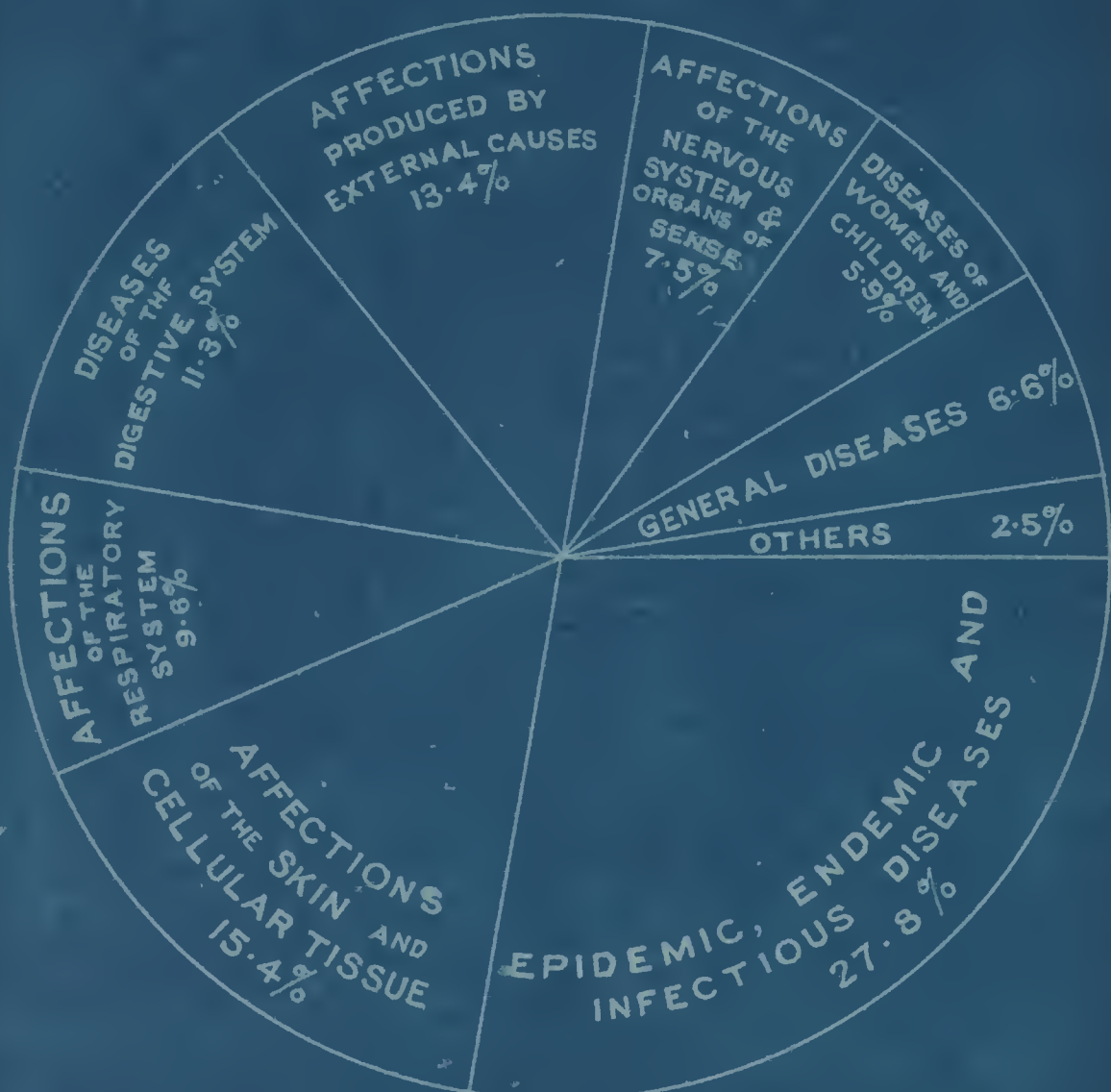
	1935		1936	
	New Cases.	Admissions.	New Cases.	Admissions.
European	2,911	377	3,076	517
Asian	7,696	944	7,566	1,345
African	895,879	32,484	962,836	29,215

Ninety dispensaries were in use at the beginning of 1936. During the year, Katera in Masaka District was closed and a new dispensary built at Kiebbe a few miles away; dispensaries were opened at Palabek in Chua, and Buyende in Busoga; dressing posts were opened at Nakaloke (the site of the Health Exhibition near Mbale in 1935) and Lokung in Chua; in the West Nile District, the dressing post at Rumogi was moved to Mocha; and the medical care of the Forestry station at Kityerera was handed over to one of the staff of that Department who was trained at the civil hospital, Jinja, to deal with minor sicknesses and injuries. The total number of dispensaries and dressing posts at the close of the year was therefore 93. Permanent buildings replaced the old temporary structures at Mpalo in Kigezi, and Aboki in Lango.

52. The number of cases seen at station hospitals and dispensaries was as follows:—

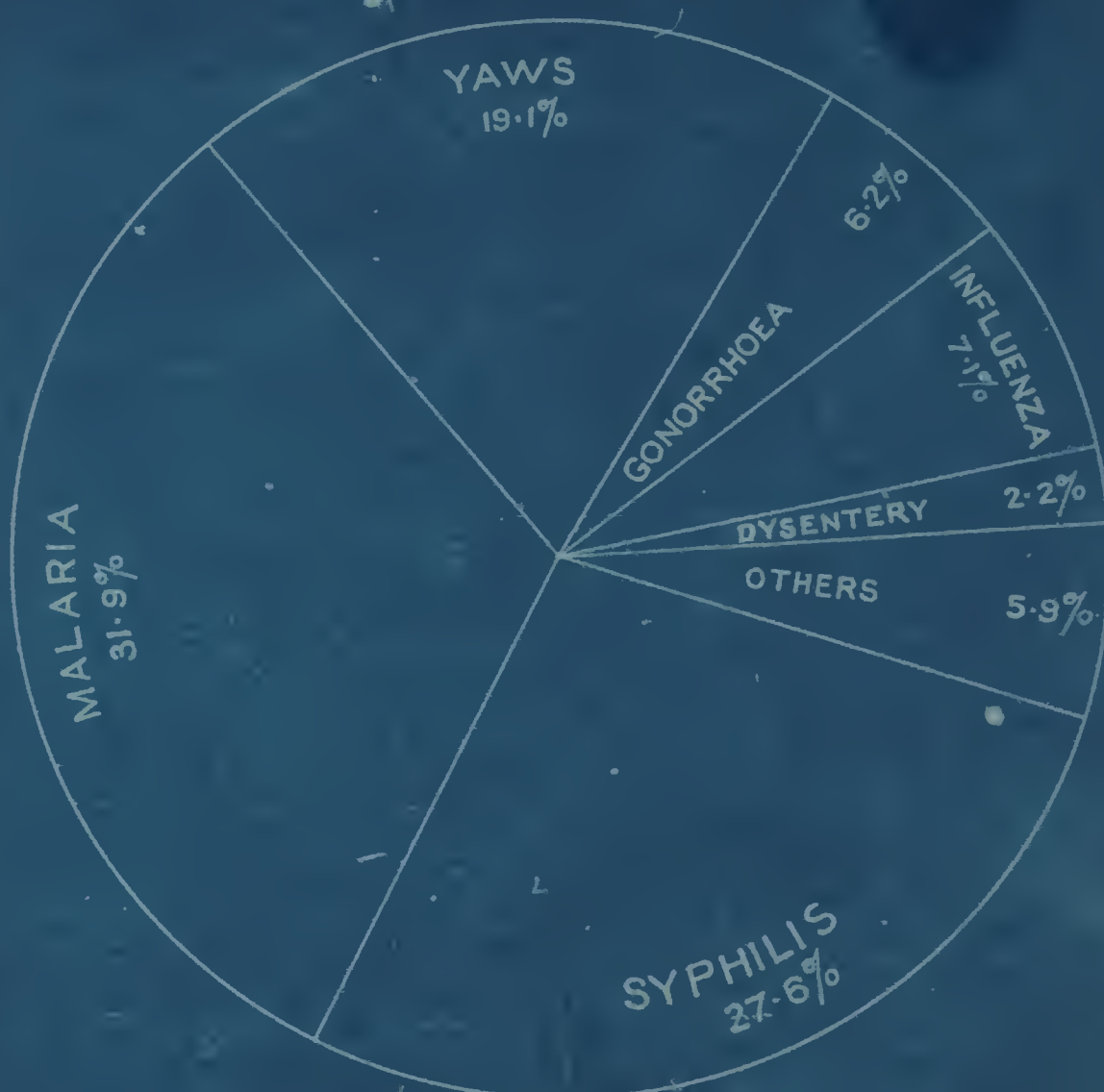
	1935		1936	
	New cases including examinations.	Re-attendances.	New cases including examinations.	Re-attendances.
Hospitals	382,478	682,336	442,573	627,535
Dispensaries	652,060	1,423,111	643,997	1,380,724
TOTAL	1,034,538	2,105,447	1,086,570	2,008,259
Total attendances ..	3,139,985		3,094,829	

THE PROPORTION OF EPIDEMIC, ENDEMIC, INFECTIOUS, SYSTEMIC AND OTHER DISEASES SHOWN AS PERCENTAGES OF TOTAL CASES

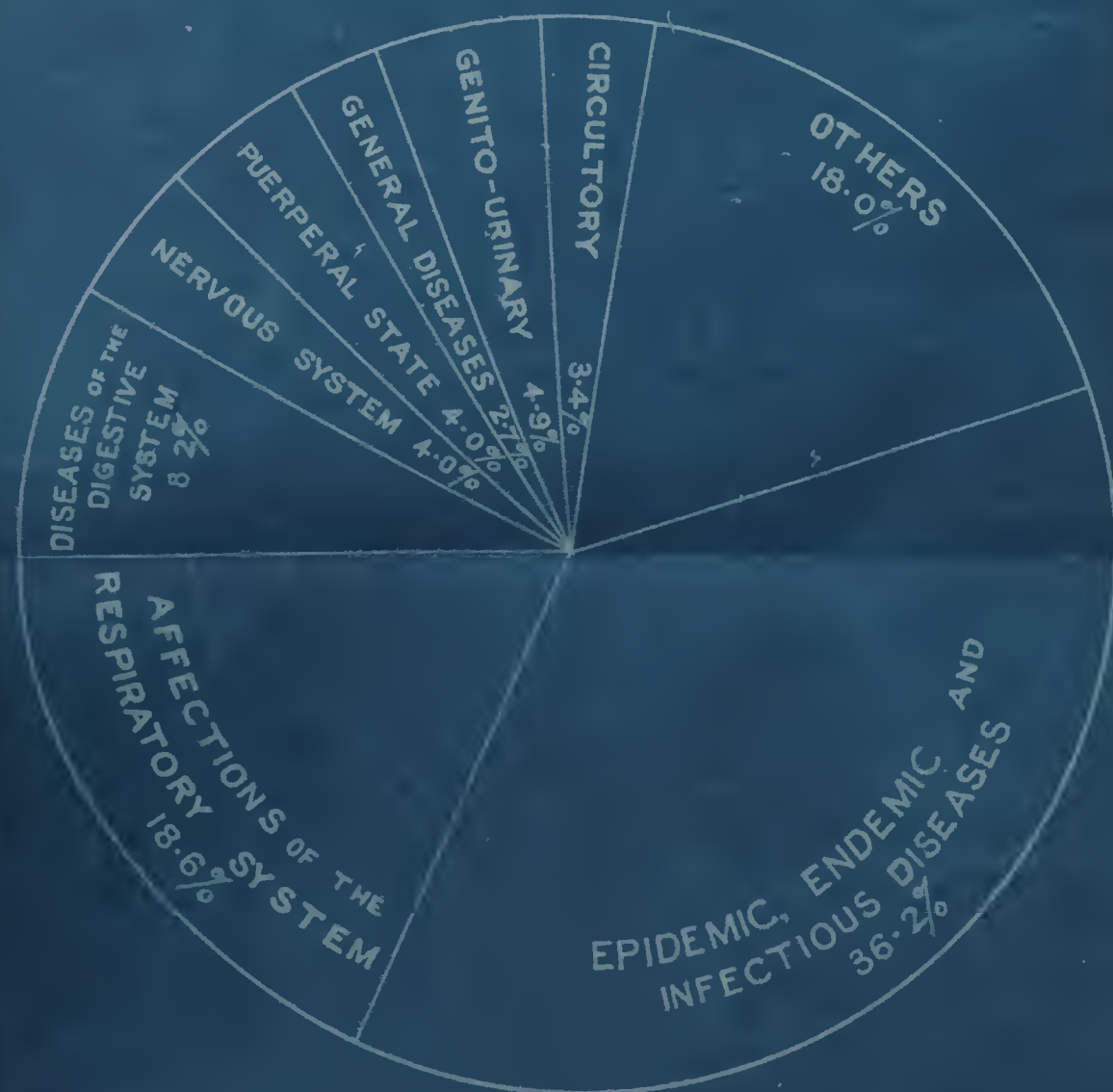


TOTAL INCIDENCE : 378,793

THE PROPORTION OF EPIDEMIC, ENDEMIC AND INFECTIOUS DISEASES



TOTAL INCIDENCE: 105,222



TOTAL DEATHS: 1,833



TOTAL DEATHS: 663

53. This year, as a change in the returns submitted by stations to Medical Headquarters has been made, and the number of cases of each disease treated in dispensaries other than those in charge of Senior African Medical Assistants is no longer included, comparisons with figures in previous years cannot be made. For certain diseases, the number attending dispensaries was returned and for those diseases comparisons are made in the text of this Report.

54. *Deaths in Hospital.*—The principal causes were:—

	1932	1933	1934	1935	1936
Total admissions	24,072	30,071	33,116	33,805	31,077
Total deaths	1,264	1,357	1,550	1,724	1,833
Pneumonia	279	285	356	346	320
Accidents	115	133	143	173	162
Plague	40	52	29	41	34
Syphilis	41	48	55	43	60
Dysentery	26	25	28	48	49
Malaria	50	57	107	116	142
Tuberculosis	66	66	89	62	94
Cerebro-spinal meningitis ..	15	14	43	76	114
Cancer	4	8	17	26	30
Child-birth	28	66	67	78	74
Death-rate in hospitals ..	5·62%	4·51%	4·68%	5·09%	5·89%

55. The lower number of admissions in 1936 was accounted for by the omission of the figures from all dispensaries with wards attached, except from Kamuge, Kaberamaido, and Aduku. The bigger death-rate at hospitals is probably due to the fact that trivial cases of disability such as ulcers are not now admitted as in-patients, but are treated in sick lines, and that as confidence in the medical service increases, serious cases of illness who formerly never came to hospital, are now being brought by their friends. There were fewer deaths from pneumonia than in the previous years, but as the number of admissions fell from 1,485 to 1,262 the death-rate which had been 23·36 in 1935 rose to 25·35. Fewer women died as a result of child-birth and the death-rate fell from 4·29 to 3·85.

I. General Diseases.

56. *Epidemic, Endemic and Infectious Diseases.*—The number of cases and deaths in this group was 105,222 cases with 663 deaths. The largest numbers were recorded under malaria 33,607, syphilis 29,021, and yaws 20,103. These diseases are discussed in another section. This group forms 27·7 per cent. of the total number of new cases.

57. *General Diseases.*—25,185 cases were recorded. There were 151 cases of malignant disease compared with 118 in 1935 and 149 in 1934. 55 cases of cancer affected the female genital organs. Rheumatism and myalgia accounted for 22,514 cases. Probably a heterogeneous collection of ailments are recorded under these two headings.

58. *Affections of the Nervous System and Organs of Sense.*—There were 28,410 cases. Diseases of the eye totalled 14,763 of which 2,519 were of trachoma, which is responsible for a great deal of the blindness in this country. 864 persons in this group, of whom 73 died, were admitted to hospital. 27 of the deaths were due to meningitis.

59. *Affections of the Circulatory System.*—There were 2,541 cases of which 1,552 appear under the heading of lymphadenitis. There were 63 deaths, of which 27 were due to myocarditis.

60. *Affections of the Respiratory System.*—36,485 cases of whom 1,991 were admitted to hospital, with 341 deaths, appear under this heading. Pneumonia, a most fatal disease among Africans caused 320 deaths among the 1,262 cases admitted to hospital, a death-rate of 25·35 per cent. Altogether among in- and out-patients there were 601 cases of broncho-pneumonia with 79 deaths, 1,038 cases of lobar pneumonia with 207 deaths and 234 cases in which the type was not classified with 34 deaths. There were only seven cases of empyema, of which five died.

61. *Diseases of the Digestive System.*—42,839 cases were recorded under this heading. 3,568 persons with carious teeth and 441 with pyorrhoea came for treatment. Several medical officers commented on the bad state of the teeth and gums in school children, and the question of training African dental assistants to give treatment at the schools and elsewhere is under consideration. Intestinal parasites account for 5,667 of the numbers in this group, but this number is only a fraction of those who were discovered to harbour parasites while under treatment for other diseases and who were cured of their infestation. There were 142 cases of rectal bilharzia compared with 124 in the year before; 120 occurred in the Northern Province, 58 of these at Moyo. 10,735 cases appear under the heading of constipation. Many of these were, no doubt, suffering from other diseases of which constipation was merely one of the symptoms.

62. *Diseases of the Genito-Urinary System.*—There were 2,463 cases of whom 1,223, or almost 50 per cent. were women. The number of cases of schistosomiasis dropped from 37 to 27, of which 18 were treated at Jinja.

63. *Puerperal State.*—10,825 women were recorded in this group, and the figures for the past five years are compared in the following table, in which the figures for dispensaries with ante- and post-natal clinics, and for country maternity centres are included:—

	1932	1933	1934	1935	1936
Women who attended for ante-natal supervision	7,254	12,110	12,828	18,864	16,689
Number of attendances of women for ante-natal supervision ..	..	..	33,107	47,472	68,477
Women admitted to hospitals and centres for child-birth ..	786	853	1,101	1,502	1,859
Babies born alive in hospitals and centres	758	822	979	1,358	1,732

64. The fall in the number of women attending for supervision is more apparent than real as this year those attending the dispensaries where no regular clinics for this purpose are held are not included. There was a large increase in the number of attendances. The number of confinements in hospitals and maternity centres was also greater than ever before. There was a decrease from 78 to 74 in the number of deaths, and the death-rate which was 4·92 per cent. in 1934, 4·29 per cent. in 1935,

was in 1936 only 3·97. In 1935, there were 144 still births or 9·95 per cent.; in 1936, 155 still births or 8·94 per cent. As has been pointed out in previous Reports, the percentage of maternal deaths and still births in hospitals is raised by women who come into hospital as a last resort after every effort made outside has failed. It is not a matter for surprise that so many of these women die.

65. *Affections of the Skin and Cellular Tissues*.—58,187 cases were recorded under this heading. Scabies accounted for 13,528 of these cases and ulcers for 26,365, half of the latter being reported from the West Nile. The figure would have been very much larger had the numbers from dispensaries been included. The significance of the large numbers of the population of Uganda who suffer from ulcers is discussed elsewhere.

66. *Diseases of Infancy*.—The heading of this section is misleading as the majority of infants recorded were normal babies born in hospital and healthy, or comparatively healthy, infants attending welfare centres. Children who come to hospital for definite illness are not included in this group but are placed in the section to which their illness belongs. Excepting still births, of which there were 155, 11,671 infants were included; of these, 1,432 were babies born in hospital, and 10,065 infants brought up for post-natal supervision.

67. *Affections produced by External Causes*.—There were 50,585 cases, of whom 4,179 with 177 deaths were admitted to hospital. A considerable number of the more serious injuries in the Protectorate to-day are caused by motor accidents. No figures of the number of cases which come to hospitals, or of the number of deaths caused, are available, but such information would be extremely interesting.

II. Communicable Diseases.

(a) MOSQUITO OR INSECT-BORNE.

68. *Trypanosomiasis*.—The following table shows the number of reported deaths during the years 1905 to 1914 when the disease was epidemic on Lake Victoria, and also the number of new cases and reported deaths for the last ten years when the large majority of cases occurred in the West Nile District:—

Year.	Reported deaths.	Year.	Reported deaths.	New cases.
1905	.. 8,003	1927	.. 79	.. 496
1906	.. 6,522	1928	.. 67	.. 1,024
1907	.. 4,175	1929	.. 78	.. 3,349
1908	.. 3,662	1930	.. 51	.. 727
1909	.. 7,782	1931	.. 117	.. 513
1910	.. 1,546	1932	.. 85	.. 536
1911	.. 1,487	1933	.. 109	.. 693
1912	.. 932	1934	.. 127	.. 773
1913	.. 708	1935	.. 72	.. 675
1914	.. 466	1936	.. 58	.. 1,927*

* A large part of the increase is to be attributed to the very intensive examination in 1936 of all the residents in the Koich area of the West Nile. The decrease in reported deaths tends to bear this out.

The above figures include suspected cases, of which there were 870 in 1936.

During the intermediate years 1915 to 1926 inclusive 1,808 deaths were reported.

69. The distribution of cases for the last five years has been:—

	1932	1933	1934	1935	1936
West Nile	317	495	615	568	1,867
Gulu	14	9	22	16	7
Madi	21	22	21	13	24
Chua	29	23	24	14	2
Lake Edward-George Area ..	144	130	81	64	27
Kigezi	..	..	1	..	..
Lake Victoria Area ..	11	4	..	..	..
Source of infection uncertain ..	..	10	9	..	..

70. In addition to the new cases enumerated above, 150 persons who had relapsed received further treatment in 1936. Of the 58 deaths reported, five occurred in hospital and the remainder, many doubtless from intercurrent infections, in the districts. 54 deaths occurred in the West Nile and four in Madi.

71. *West Nile Sleeping Sickness Area:*—

	1932		1933		1934		1935		1936	
	Old.	New.	Old.	New.	Old.	New.	Old.	New.	Old.	New.
Cases treated in Arua and dispensaries	14	29	30	48	25	46	7	46	4	34
Cases treated in Aringa and dispensaries	59	264	93	404	58	561	77	503	..	843
Cases treated in Junam ..	8	24	36	43	3	8	..	17	5	26
Cases treated in Terego ..	..	..	..	..	..	..	..	..	..	107

In addition, 857 suspected cases were reported, mainly from the Aringa area. As will be seen there was a considerable rise in the number of cases in 1936, the increase being accounted for by a new focus of infection discovered near Terego; by an extension of the disease in Omugo and Offude counties; and by an increase in Aringa due mainly to more intensive and frequent inspections whereby an infected person had little chance of escaping detection. In Junam, the disease is quiescent.

72. *Gulu, Chua and Madi Sleeping Sickness Areas.*—The incidence for the last five years has been:—

	1932		1933		1934		1935		1936	
	Old.	New.	Old.	New.	Old.	New.	Old.	New.	Old.	New.
Gulu	25	14	26	9	12	22	14	16	8	7
Chua	18	29	21	23	8	24	9	14	4	2
Madi	387	21	314	22	393	21	23	13	60	24

73. In Madi, a new focus at Obongi was discovered. This was quickly arrested, and at a subsequent inspection in November, only two suspected cases were discovered. A careful watch must be kept in that district lest an undetected focus should assume epidemic proportions. In Gulu and Chua, the position is considered satisfactory. Only four deaths were reported from Madi and none from Gulu or Chua.

74. *Lake Victoria Area.*—Despite the continued influx of a large number of immigrants from neighbouring territories where sleeping

sickness is present, no cases of the disease have been detected in the Lake area since 1933.

75. *Lake Albert—George Area:—*

	1932		1933		1934		1935		1936	
	Old.	New.	Old.	New.	Old.	New.	Old.	New.	Old.	New.
Cases seen at Fort Portal and dispensaries ..	9	144	18	130	44	81	21	64	19	27

No deaths were reported from this area, and it is believed that the disease will shortly be eradicated. Infected persons attended satisfactorily for treatment.

76. *Plague.*—Fewer than half the number of persons contracted plague compared with 1935 (980 cases with 929 deaths compared with 2,010 cases with 1,871 deaths in 1935) but cases occurred in every district of the Eastern Province, in Mengo and Entebbe Districts of Buganda, and in the Lango District of the Northern Province. As usual, the remainder of the Northern Province, and the whole of the Western were free of the disease. It will be observed that compared with 1935 small increases in the number of cases took place in Entebbe, Bugwere and Teso Districts, while on the other hand there were very substantial decreases in incidence in Mengo and Lango. No cases were reported from Masaka where there were five cases in 1935. It was noted in the Report for last year, that the mortality in Busoga was only 75 per cent. compared with 99 per cent. in the remainder of the Protectorate. This year, the mortality in Busoga rose to 86 per cent., that for the other district being just under 99 per cent.

77. Cases occurred as follows:—

				1935		1936	
				Cases.	Deaths.	Cases.	Deaths.
BUGANDA PROVINCE:—							
Mengo	..	..	..	704	693	237	232
Entebbe	..	..	..	31	31	38	37
Masaka	..	..	..	5	5	..	..
EASTERN PROVINCE:—							
Busoga	..	..	..	505	379	300	259
Bugwere	..	..	..	204	203	254	254
Bugishu	..	..	..	40	40	3	3
Budama	..	..	..	27	26	12	11
Teso	..	..	..	30	30	68	68
NORTHERN PROVINCE:—							
Lango	..	..	..	465	464	68	65

78. In the last 20 years there have been 38,920 deaths from plague, as follows:—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1917 ..	4,031	1922 ..	1,305	1927 ..	1,863	1932 ..	990
1918 ..	2,493	1923 ..	914	1928 ..	1,174	1933 ..	833
1919 ..	1,022	1924 ..	810	1929 ..	5,118	1934 ..	937
1920 ..	1,732	1925 ..	869	1930 ..	2,370	1935 ..	1,871
1921 ..	5,871	1926 ..	1,589	1931 ..	2,299	1936 ..	929

79. *Relapsing Fever*.—There has been a considerable drop in the number of cases treated in hospitals and dispensaries in the last three years, as is shown in the following table:—

Year.	Cases.	Year.	Cases.	Year.	Cases.
1928 ..	2,494	1931 ..	871	1934 ..	1,135
1929 ..	1,879	1932 ..	1,336	1935 ..	656
1930 ..	884	1933 ..	1,387	1936 ..	493

80. Of the 493 cases in 1936, 111 were returned from dispensaries where there is usually no verification of the diagnosis by the microscope and 382 from district hospitals. 274 cases, of which 19 ended fatally, were admitted to hospital. As usual, the large majority of the cases occurred in the Western Province.

	1933	1934	1935	1936
Fort Portal and dispensaries	28	18	40	51
Kabale and dispensaries	46	45	65	40
Mbarara and dispensaries	856	958	353	238
Masaka and dispensaries	323	87	131	108

81. In addition cases occurred at Mulago (19), Kasenyi (13), Jinja (8), Hoima (7), Entebbe (5) and Masindi (1). All medical officers stated that the cases occurred almost exclusively in Banyaruanda labour, except at Hoima where prisoners contracted the disease in a gaol which was found to be infected with ticks and destroyed. In view of the constant stream of labour passing through the infected areas into Buganda, it is a remarkable fact that the tick has not been imported into Buganda on the clothes of the immigrants.

82. *Typhus*.—As only two cases of this disease occurred in 1936, and six in 1935, it appears that the universal use of Carnie's disinfectant, described in the 1934 Report, has been successful in eradicating the disease. Should, however, the use of the apparatus be allowed to lapse, it is probable that typhus would re-appear in Kigezi especially as the disease is still present in neighbouring areas outside the Uganda border, areas to and from which inhabitants of Kigezi move freely.

83. *Malaria*.—There was again a considerable increase in the number of cases of malaria, 71,407, with 142 deaths in hospital, being treated. There has been a progressively larger number of cases reported over a period of some years.

	Cases.	Deaths in Hospital.
1932	47,902	58
1933	48,702	57
1934	60,229	107
1935	62,581	116
1936	71,407	142

84. 31,656 of the cases were treated in station hospitals and 39,751 in dispensaries. Of the total increase of 8,826, no fewer than 5,425 occurred in stations. The probable reason for this increase is that the

early months of 1936 were unusually wet, and that as a result there was an increase in the number of breeding places of mosquitoes. The following table compares the incidence in stations where malaria is particularly prevalent:—

	1934		1935		1936	
	Diagnosed by Microscope.	Total.	Diagnosed by Microscope.	Total.	Diagnosed by Microscope.	Total.
Kampala ..	1,376	6,035	1,802	5,715	1,805	5,909
Entebbe ..	613	1,144	461	1,358	563	1,540
Masaka ..	908	1,768	1,060	2,076	1,228	2,384
Mbarara ..	1,177	2,505	1,057	2,703	1,576	4,740
Jinja ..	1,293	2,594	940	1,883	2,323	4,483
Tororo ..	579	1,244	930	1,479	1,152	2,070
Soroti ..	598	2,071	505	1,445	500	1,827
Lira ..	625	1,195	549	993	436	907
Gulu ..	373	647	429	861	351	842
Masindi ..	503	774	445	969	303	950
Arua ..	877	1,374	758	1,188	603	1,053

85. Once again, Mbarara had more cases than any other station except Kampala. No doubt, a great many of the cases occurred in immigrant labour who were half-starved and debilitated by their long journey from Ruanda. For the same reason the number of cases at Masaka was high. There was also a large increase in Jinja, more than double the number of cases in 1935 being recorded. In all stations, 40 per cent. of the cases were diagnosed by the microscope.

86. The distribution of malaria by Provinces for the last three years has been as follows:—

	Buganda.		Eastern Province.		Western Province.		Northern Province.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1934 ..	18,756	37	22,767	34	9,693	24	9,013	12
1935 ..	19,200	46	24,256	52	9,900	6	9,225	12
1936 ..	21,982	72	27,980	40	11,319	13	10,126	17

87. The increase, therefore, has been general throughout the Protectorate, though smallest in the Northern Province, which it is rather surprising to find less malarious than the reputedly healthy Western Province.

88. The number of admissions to hospitals was 4,587, compared with 3,910 in 1935, while the deaths increased from 116 to 142. The position during the last four years has been as follows:—

	Number of in-patients.	Number of deaths.	Death-rate per cent.
1933	3,199	57	1·78
1934	3,986	106	2·67
1935	3,910	116	2·96
1936	4,587	142	3·09

Most of the deaths were in Banyaruanda labour, who were admitted to Mbarara, Masaka, Mulago and Jinja hospitals in a greatly debilitated state.

89. The following table shows the incidence of malaria compared with all diseases in each Province and the number of cases per thousand population:—

	1933	1934	1935	1936
BUGANDA PROVINCE:—				
Cases of malaria	16,910	18,756	19,200	21,982
Rate per 1,000 cases all diseases ..	104	103	99	105
Rate per 1,000 population ..	19	21	21	24
EASTERN PROVINCE:—				
Cases of malaria	14,733	22,614	24,108	27,980
Rate per 1,000 cases all diseases ..	55	80	78	83
Rate per 1,000 population ..	12	19	20	24
WESTERN PROVINCE:—				
Cases of malaria	8,583	9,693	9,900	11,319
Rate per 1,000 cases all diseases ..	80	70	66	75
Rate per 1,000 population ..	12	13	13	15
NORTHERN PROVINCE:—				
Cases of malaria	8,348	9,013	9,225	10,126
Rate per 1,000 cases all diseases ..	43	39	37	42
Rate per 1,000 population ..	11	11	11	12
TOTALS FOR PROTECTORATE:—				
Cases of malaria	48,574	60,076	62,433	71,407
Rate per 1,000 cases all diseases ..	65	72	69	72
Rate per 1,000 population ..	13·7	16·8	17·4	19·8

Karamoja is excluded from the above figures and calculations.

90. *Blackwater Fever*.—63 cases with 14 deaths were reported by Government medical officers and 96 cases with 16 deaths by private practitioners—a total of 159 cases with 30 deaths compared with 158 cases with 41 deaths in 1935. The cases by race and sex were as follows:—

	Males.		Females.	
	Cases.	Deaths.	Cases.	Deaths.
Europeans	4	1	4	1
Asians	113	23	28	3
Africans	9	2	1	..
TOTAL	126	26	33	4

In 1935, there were 13 cases among Europeans, 139 among Asians and 6 among Africans.

91. The number of cases, deaths and case mortality for the last 20 years has been (Africans are excluded from all the following tables):—

Year.	Cases.	Deaths.	Case Mortality.	Year.	Cases.	Deaths.	Case Mortality.
1917 ..	49	8	16·5	1927 ..	106	28	26·4
1918 ..	40	7	17·5	1928 ..	166	40	24·1
1919 ..	83	13	21·7	1929 ..	109	16	14·6
1920 ..	56	7	12·5	1930 ..	140	35	25·0
1921 ..	62	15	24·1	1931 ..	155	43	27·7
1922 ..	83	14	16·8	1932 ..	120	39	32·5
1923 ..	71	17	24·0	1933 ..	143	41	28·6
1924 ..	70	23	32·8	1934 ..	135	36	26·6
1925 ..	81	22	27·1	1935 ..	152	41	27·1
1926 ..	170	50	29·0	1936 ..	149	28	18·8

92. In spite of the increase in the number of cases of malaria, the number of cases of blackwater fever remained much the same as in previous years, and the death-rate was the lowest since 1929. It is noteworthy that there have been only 40 cases among Europeans in the last four years compared with 539 among Asians. The Blue Book for 1935 gives the European population as 1,994 and the Asian population as 14,860, so that the incidence among the latter race has been nearly twice as great as that among the European. The probable reasons for this are that the European takes quinine more regularly than the Asian, many of whom, among the poorer classes at least, take quinine only during an attack of malaria, and cease immediately it is over. A state of chronic malaria results. In addition, as is mentioned elsewhere, Asians at ginneries are frequently housed extremely badly and, as they have to work long hours, they are very prone to blackwater fever.

93. One European official, two Asian officials of the Public Works Department and two Asian officials of the Kenya and Uganda Railways and Harbours contracted the disease.

94. The incidence by provinces and stations for the last six years has been as follows:—

			1931	1932	1933	1934	1935	1936	
								Cases.	Deaths.
BUGANDA PROVINCE—									
Kampala	..	..	35	34	43	40	38	31	9
Bombo	..	..	..	..	..	1	2	3	1
Mengo District	..	..	8	4	8	3	6	9	1
Entebbe	..	..	2	3	1	2	..	..	..
Masaka	..	..	1	3	4	..	8	11	1
Masaka District	..	..	..	..	..	..	..	1	..
Mubende	..	..	..	..	..	1	..	..	..
District (unspecified)	..	..	16	..	..	..	..	..	..
TOTAL			62	44	56	47	54	55	12
EASTERN PROVINCE—									
Jinja ..	..	..	11	17	10	15	15	20	2
Namasagali	..	..	5	5	11	7	1	..	..
Busoga District	..	..	3	7	7	15	13	9	2
Tororo	..	..	12	5	14	3	11	10	3
Budama District	..	..	..	2	1	1	5	3	1
Mbale	..	..	13	10	14	26	20	24	1
Bugishu District	..	..	..	..	..	..	..	1	..
Soroti	..	..	8	9	9	7	4	2	..
Teso District	..	..	5	9	4	1	7	9	1
District (unspecified)	..	..	16	..	..	..	..	..	..
TOTAL			73	64	70	75	76	78	10
NORTHERN PROVINCE—									
Arua ..	..	..	2	1	1	..	..	1	..
West Nile District	..	..	..	..	..	..	2	..	..
Masindi	..	..	3	..	1	1	..	2	..
Hoima	..	..	..	2	2	..	3	..	..
Butiaba	..	..	..	1	..	2	1	..	..
Bunyoro District	..	..	..	..	1	..	3	1	..
Gulu ..	..	..	7	2	1	2	2	1	..
Gulu District	..	..	..	..	..	2	..	1	1
Kitgum	..	..	1	2	1	..	1	3	2
Chua District	..	..	..	..	..	..	1	..	..
Moyo	..	..	..	1	..	..	..	..	..
Lira ..	..	..	8	5	3	..	8	5	2
Lango District	..	..	..	..	5	4	1	..	..
TOTAL			21	14	15	11	22	14	5

			1931	1932	1933	1934	1935	1936	
									Cases. Deaths.
WESTERN PROVINCE—									
Mbarara	..	..	1	1	..	..	..	...	..
Ankole District	..	..	..	..	..	..	..	1	..
Kabale	..	..	..	..	..	2	..	1	1
Fort Portal	..	..	3	..	2	..	..	..	..
Toro District	..	..	1	..	..	..	..	..	..
TOTAL	..	..	5	1	2	2	..	2	1

The European male died at Kabale and the female at Kitgum.

95. The following table gives the incidence by Provinces:—

		1932		1933		1934		1935		1936	
		Population European and Asian.	Incidence per 1,000 population.	Population European and Asian.	Incidence per 1,000 population.	Population European and Asian.	Incidence per 1,000 population.	Population European and Asian.	Incidence per 1,000 population.	Population European and Asian.	Incidence per 1,000 population.
Buganda Province	..	7,746	5·9	7,746	7·6	7,451	6·3	8,142	6·6	8,199	6·7
Eastern Province	..	5,698	11·2	5,698	12·3	6,175	12·1	6,255	12·1	5,900	13·0
Northern Province	..	1,623	8·6	1,623	9·2	1,555	7·0	1,574	14·6	1,658	8·4
Western Province	..	805	1·2	805	2·5	877	2·2	1,050	..	1,107	1·8

96. The case incidence in age groups was as follows:—

Age.			Cases.	Deaths.	Percentage Mortality.
0—5	..	..	12	1	8·33
6—10	..	..	17	1	5·88
11—15	..	..	4	3	75·00
16—20	..	..	10	2	20·00
21—30	..	..	61	11	18·03
31—40	..	..	38	7	18·42
41—50	..	..	4	2	50·00
54	..	..	1	..	..
74	..	..	1	..	..
Unknown	..	..	1	1	100·00

97. In twelve cases, two of whom died, it was the second attack; in five cases, with two deaths, the third; in six cases, with one death, the fourth; in one case, who recovered, the fifth; and one man, who died, was stated to have had twelve previous attacks.

98. *Case Incidence, Mortality and Fatality Rates:*—

		1923—1927	1928—1932	1933	1934	1935	1936
YEARLY AVERAGE POPULATION—							
European	..	1,614	1,990	1,811	1,854	1,959	1,994
Asian	..	9,221	13,337	14,061	14,204	15,086	14,860
TOTAL	..	10,835	15,327	15,872	16,058	17,045	16,854

	1923-1927	1928	1932	1933	1934	1935	1936
CASES OF BLACKWATER FEVER—							
European	72	70	7	12	13	8	
Asian	421	612	136	123	139	141	
TOTAL ..	493	682	143	135	152	149	
DEATHS FROM BLACK-WATER FEVER—							
European	16	14	1	4	..	2	
Asian	120	159	40	32	41	26	
TOTAL ..	136	173	41	36	41	28	
CASE INCIDENCE PER 1,000 POPULATION—							
European	8·92	7·04	3·86	6·47	6·63	4·01	
Asian	9·13	9·18	9·67	8·65	9·21	9·49	
TOTAL ..	9·10	8·90	9·01	8·40	8·91	8·84	
MORTALITY RATE PER 1,000 POPULATION—							
European	1·98	1·41	0·55	2·15	..	1·00	
Asian	2·60	2·38	2·84	2·25	2·71	1·75	
TOTAL ..	2·51	2·26	2·58	2·24	2·40	1·66	
PERCENTAGE FATALITY RATE—							
European	22·22	20·00	14·28	33·33	..	25·00	
Asian	28·50	25·98	29·41	26·01	29·49	18·44	
TOTAL ..	27·59	25·37	28·67	26·66	26·97	18·82	

99. Among Africans, there were ten cases, one of whom was a female. This is the first recorded case in a female. The cases were as follows:—

Place.	Tribe.	Age.	Result.
Kampala	Muganda F. ..	13	Recovered.
Kampala	Munyankole ..	19	Recovered.
Kampala	Munyankole ..	30	Died.
Kampala	Mukiga	50	Died.
Kampala	Muganda	50	Recovered.
Kampala	Mutoro	21	Recovered.
Luzira Gaol ..	Munyankole ..	19	Recovered.
Soroti	Itesot	32	Recovered.
Kabale	Mukiga	24	Recovered.
Tororo	Kikuyu	27	Recovered.

100. It will be seen that four of the above contracted the disease in their tribal area, in which they had been resident for some months before the attack. There have now been recorded 51 cases with eight deaths among local Africans, six cases with one death among Seychelles natives, and one West African case.

(b) INFECTIOUS DISEASES.

101. *Epidemic Cerebro-spinal Meningitis*.—360 cases with 130 deaths as compared with 1,318 cases with 469 deaths in the previous year were reported. These came from nine districts of the Protectorate, while in addition sporadic cases were diagnosed in the townships of Kampala (four cases with no deaths), Jinja (one case which recovered), Fort Portal (nine cases with six deaths) and Kabale (six cases with five deaths). The severe epidemic of 1935 in Kigezi and Ankole gradually died out in 1936.

				1935		1936	
				Cases.	Deaths.	Cases.	Deaths.
Ankole	..	..	..	193	114	51	17
Kigezi	..	..	..	1,024	303	128	31

102. In Ankole, a few cases occurred during every month of the year, but there was no epidemic, while in Kigezi, though the disease was seldom completely absent, 76 of the 128 cases occurred during the first three months. There was also a slight exacerbation in August and September when 25 cases were reported. Six cases occurred in the Central Prison, Luzira, during January, but fortunately the disease did not spread. Altogether 202 cases with 114 deaths were treated in hospitals.

103. *Dysentery*.—2,323 cases with 49 deaths in hospital were recorded during the year from station hospitals and the three dispensaries with a Senior African Medical Assistant in charge.

104. In 1935, from the same hospitals and dispensaries 2,638 cases were reported. The cases were distributed as follows:—

				1935		1936	
				Cases.	Deaths.	Cases.	Deaths.
Amoebic	..	..	..	1,251	16	667	16
Bacillary	..	..	..	325	21	309	21
Undefined	..	..	..	1,062	11	1,347	12
TOTAL	..	..	..	2,638	48	2,323	49

105. 566 cases were admitted to hospital with a mortality of 8·65 per cent. compared with 5·81 per cent. in the previous year. Two-thirds of the cases of amoebic dysentery occurred in the Northern Province; it was particularly common at Arua and Lira. There were fewer cases among Europeans than in 1935.

106. *Influenza*.—18,016 cases were returned, 7,520 from hospitals and 10,496 from dispensaries. This compares with 16,406 in the previous year. It is probable that a proportion of the cases returned by dispensaries are not influenza. There was a wide-spread but fortunately mild epidemic with no deaths in the Central Prison, Luzira, in August. The only severe epidemic reported was in Kigezi where broncho-pneumonia was a common sequel.

107. *Small-pox*.—32 cases of small-pox were reported from Kampala, Mengo District, Entebbe District, and Masaka District in the first three months of 1936. There were five deaths.

108. *Syphilis and Yaws*.—There was an appreciable drop in the number of cases of syphilis diagnosed during the year, while the figures for yaws varied little:—

	1931	1932	1933	1934	1935	1936
Syphilis ..	64,591	68,432	72,218	74,141	72,361	63,695
Yaws ..	47,598	43,773	49,546	57,056	64,715	62,240
Both Diseases ..	112,189	112,205	121,764	131,197	137,076	125,935

109. The distribution between Provinces was:—

			Syphilis.	Yaws.
BUGANDA PROVINCE—				
Hospital Cases	..	..	10,276	634
Dispensary Cases	..	..	15,539	883
TOTAL	..	..	25,815	1,517
EASTERN PROVINCE—				
Hospital Cases	..	..	2,473	1,255
Dispensary Cases	..	..	20,127	7,197
TOTAL	..	..	22,600	8,452
NORTHERN PROVINCE—				
Hospital Cases	..	..	1,593	7,244
Dispensary Cases	..	..	1,908	15,658
TOTAL	..	..	3,501	22,902
WESTERN PROVINCE—				
Hospital Cases	..	..	2,918	4,876
Dispensary Cases	..	..	8,861	24,493
TOTAL	..	..	11,779	29,369

110. As usual, in Buganda yaws is extremely rare, syphilis rife; in the Northern Province, yaws is prevalent and syphilis, except in Bunyoro, uncommon. Of the total number of 3,501 cases diagnosed syphilis, 2,286 were returned from Bunyoro, the only Bantu district of the Province, and 1,315 from the Nilotic districts. In the Western Province, yaws predominates, particularly in the districts where syphilis is likely to be less common than in and near the stations to which it has no doubt been introduced by persons of other tribes. In the Eastern Province, on the other hand, the proportion of cases of syphilis to yaws is much higher in the dispensaries, and it is probable that many of those returned as syphilis by the orderly-in-charge are really yaws.

111. Judging by the routine blood tests done on women attending the ante-natal clinic at Mulago, syphilis is extremely prevalent—over 70 per cent. of cases being under suspicion. The gynaecologist working at that hospital during 1936, Dr. J. Scott Brown reports that whereas one would expect to meet many cases of child-birth presenting the clinical features of syphilis, such as macerated premature babies with large greasy placentas, and in early infancy babies with syphilitic rashes, this was not in fact the case, even in those women who had received no ante-natal treatment. He, therefore, concludes that, though there cannot be any doubt that syphilis is common among the Baganda, the

majority of the young parents of to-day are themselves congenital syphilitics and incapable of transmitting the disease to their offspring. Sir Albert Cook also stated that he had noticed a marked diminution in the number of syphilitic children and macerated foeti compared with his early experience.

112. *Gonorrhoea*.—The number of cases suffering from gonorrhoea is shown in the following table:—

1932		1933		1934		1935		1936
10,591	..	10,702	..	9,690	..	11,849	..	14,101

113. The number treated last year is larger than in any previous year. Gonorrhoea, widespread in all parts of the Protectorate, except perhaps Kigezi and the Nilotic portions of the Northern Province, is particularly prevalent in Buganda, where a high percentage of the young men and women are infected. This is the principal cause of the low conception rate of Baganda women. Unfortunately, though many of both sexes seek treatment, attendance is spasmodic and treatment towards anything approaching a cure is almost unknown.

114. *Leprosy*.—Reports on the Mission Leper Colonies:—

Buluba Leper Colony, Busoga, managed by the Franciscan Sisters. The organisation of this Colony was revised during the year. The actual village in which the lepers live is under the management of the Native Administration which controls it through a leper who has been appointed to act as a headman under the Gombolola Chief. The area which has been leased to the Mill Hill Catholic Mission serves to accommodate the living quarters of the mission staff, the dispensary, a small ward and the chapel. Lepers attend the dispensary for treatment and are taken into the wards when necessary. The life of the colony is organised on ordinary village lines, and the lepers are expected to be self-supporting as soon as they have had time to grow crops. This arrangement works very satisfactorily as only able-bodied lepers are accepted, cripples being taken in at Nyenga. At the end of the year, there were resident 44 adult male lepers, 21 adult female, 21 children and three infants. Many of these had been in residence for several months. During 1936, quarters for the Nuns were completed and in addition dormitories for women and children together with kitchen, store, latrines and bathrooms. Prior to the rains, able-bodied male lepers who wish to enter the colony are conveyed by transport to Buluba and are allotted land and temporary quarters by the local gombolola chief assisted by the leper headman. Food is issued until such time as it is available from the shambas. A small number of leprous women and children whose husbands or parents are healthy is also admitted and these are cared for by the Sisters-in-charge who allocate them quarters and food. Able-bodied women are expected to work for their keep. Free treatment is accorded by the Sisters to all inmates of the colony, drugs being provided by the Medical Department.

115. *Nyenga Colony, Mengo*, supervised by the Franciscan Sisters. At the end of the year, there were in the colony 150 lepers including 30 children. A dormitory and kitchen to replace the dilapidated buildings which were in use were built, and a brick house for married patients was commenced. With good feeding and treatment with iodised esters, inmates in most cases improved markedly. This was particularly the

case with the children who were encouraged to lead a normal life by cultivating their food and attending school. 80 out-patients also attended the dispensary fairly regularly.

116. *Bunyoni Leper Colony, Kigezi*, managed by the Church Missionary Society. At the end of the year, there were in the colony 590 lepers (an increase of 88 on the number in 1935). Of this number 400 were capable of assisting in the cultivation of food. A commencement was made in building larger and more hygienic houses, five of which were completed and used to accommodate the African teaching staff. A pleasing feature of the year's work was an increase from four to nineteen in the number of infants (mostly of about two years of age) who were living in the untainted children's home. None of these showed any signs of leprosy. They were visited under careful supervision daily by their parents. At a survey held in March, 1936, it was found that:—

- 9% of the cases of leprosy were arrested.
- 11% of the cases of leprosy were improved.
- 33% of the cases of leprosy were stationary.
- 47% of the cases of leprosy were worse.

Though these figures do not appear very encouraging, it is hoped that there will be a distinct improvement at the next survey as nearly every member of the colony is now receiving regular treatment.

117. *Teso Settlements*.—At the *Kumi Children's Home* there were 276 inmates at the end of 1936. Of these 100 were improved, three died, and in the remainder the disease appeared to be stationary. 3,720 lepers attended, very irregularly, as out-patients. During the year, a large airy dormitory was completed, making three in all. Smaller buildings of sun-dried brick were built to serve as additional sleeping quarters. A few untainted children of the inmates of the Ongino Colony also lived in the home in separate buildings from the lepers.

118. At the *Ongino Leper Colony* for adults there were on the books 236 men, 160 women and 11 untainted children. Of these 76 were improved, 16 died, in 60 the disease was apparently stationary, and 56 became worse. 4,000 out-patients attended for treatment. Six houses built with cob walls on cement foundations and corrugated iron roofs, according to the specifications of the building committee, were almost completed during the year. The patients grow most of their own food, but the lack of a good water supply is a handicap to the colony.

119. At Government hospitals and dispensaries, 1,013 lepers came for treatment, compared with 1,445 in 1935. Results were very disappointing, it being unusual for a patient to come more than once or twice for injections, so that improvement could not be expected.

120. *Typhoid Fever*.—73 cases were reported by Government medical officers and seven by private practitioners. Cases occurred at the following stations: Kampala 46, Masaka 15, Jinja 5, Kabale 4, Hoima 3, Soroti 2, Masindi 2, Mbale 1 and Tororo 1. In addition, one case occurred in Luzira gaol. Of the patients treated by Government medical officers, 68 were infected with *B. typhosus*, two with *B. paratyphosus B.* and in three the type was undefined. All the cases, of whom 20 died, were

treated in hospital. 36 of the cases occurring in Kampala were Africans, and 10 Asians. Two of the latter died. The type of the cases treated by private practitioners was not reported. The incidence of typhoid fever in Kampala for the past 10 years has been:—

1927	..	..	60	1932	..	..	12
1928	..	..	56	1933	..	..	42
1929	..	..	85	1934	..	..	54
1930	..	..	39	1935	..	..	30
1931	..	..	66	1936	..	..	46

121. The case mortality for the Protectorate for the same period has been:—

1927	..	..	21·7	1932	..	..	18·1
1928	..	..	18·9	1933	..	..	38·2
1929	..	..	16·4	1934	..	..	23·6
1930	..	..	18·6	1935	..	..	30·3
1931	..	..	20·0	1936	..	..	27·7

122. *Tuberculosis*.—490 cases of pulmonary and 86 cases of other forms of tuberculosis were treated at Government hospitals during 1936. This is a much smaller number than has been reported for some time past, but it must be remembered that this year no cases from dispensaries are included where the diagnosis of tuberculosis has always been most open to suspicion. Mulago (104) and Masaka (92) provided the greatest number of cases. Altogether 260 persons with pulmonary disease with 89 deaths and 50 persons with infection of other organs with 5 deaths were admitted to hospital.

123. Owing to the absence on leave of Dr. Carmichael, Assistant Pathologist at the Veterinary Laboratory, Entebbe, no further information as to infection of human beings with the bovine type of *Mycobacterium tuberculosis* is available. Sputa are, however, being received at the laboratory and are being typed.

124. *Anthrax and Rabies*.—No case of either of these diseases was reported during the year.

(c) HELMINTHIC DISEASES.

125. The numbers of cases of intestinal parasites returned by hospitals which follow bear no relation to the total of patients who were actually treated for the conditions. Routine examination of the stools of in-patients is the custom at most hospitals, and treatment is given to those requiring it. In this way, patients in hospital for some other cause are frequently discovered to harbour parasites (often two or more kinds) and these do not, of course, appear in the returns.

126. *Ancylostomiasis*.—1,940 cases returned. The following results of examinations of stools were submitted by medical officers:—

Jinja	..	..	..	33 per cent. contained ova.
Entebbe	..	..	..	55 per cent. contained ova.
Ankole	..	..	..	15 per cent. contained ova.
Gulu	..	..	..	41 per cent. contained ova.

127. The District Medical Officer, Kigezi, considers ancylostomiasis uncommon in his district, but in most other districts the infection is reported to be wide-spread, but to cause little disability. It is probable, however, that infestation is responsible for some degree of ill-health.

128. *Taeniasis*.—1,990 cases were treated. The largest numbers were returned from the great cattle districts of the West—Ankole, Toro, and Masaka District. Here many of the cattle slaughtered are infested, and though inspection, and condemnation where necessary, of carcasses is carried out in the townships, it is not at present practicable in rural areas.

129. *Ascariasis*.—808 cases. Though less common than ancylostomiasis, infestation with this worm probably causes more ill-health.

130. *Dracontiasis*.—708 cases. The majority of these were reported from Kitgum and Moyo, where guinea-worm leads to a considerable degree of disability.

131. *Schistosomiasis*.—142 cases of rectal and 27 cases of urinary schistosomiasis were returned. The comparable figures for 1935 were 124 and 37. 120 of the cases of infestation with *S. mansoni* occurred in the Northern Province, half of these at Moyo. 17 of the cases of infection with *S. haematobium* were reported from Jinja.

(B) Vital Statistics.

132. The vital statistics of the Protectorate are set out in Tables A, B, and C. The population has been calculated from the census figures of 1931 with the addition of births and the subtraction of deaths in each subsequent year.

133. *Yearly Increase of Provincial Population*.—Totals per 1,000 persons:—

	1932	1933	1934	1935	1936
Buganda Province	0·4	1·7	3·1	3·4	4·4
Eastern Province	11·5	12·0	3·5	1·5	1·5
Western Province	10·6	11·0	8·6	6·3	12·4
Northern Province	15·4	15·0	8·2	14·2	12·4

134. If the registration figures are to be trusted, the population of the Western and Northern Provinces is increasing more rapidly than the other Provinces, as is shown in the following table:—

	Population at census 1931.	Population 1936.	Increase.
Buganda Province	872,746	884,175	12,429
Eastern Province	1,150,076	1,185,368	35,292
Western Province	699,148	734,192	35,044
Northern Province	748,719	799,480	50,761

135. The Eastern Province has increased its population slightly more than the Western, but owing to the larger population of the former, the rate of increase over the whole period has been smaller and in the last two years, while the Western Province has increased by 13,628, the Eastern has added only 3,771 to its numbers.

136. *Birth Rate and Death Rate.*—For the whole Protectorate births exceeded deaths by 24,591 and the population increased by 6·6 per thousand. The corresponding figures for 1935 were 20,654 and 5·8. Though these figures may be regarded as satisfactory, four districts show an excess of deaths over births—Busoga (997), Bugwere (300), Teso (438) and Mengo (258). Mengo District has actually shown 5,427 more deaths than births since the census. The reason usually given is that many Banyaruanda have settled in Mengo and that among these people the death-rate is much greater than the birth-rate. A large number of deaths among the immigrant labour also helps to swell the total. In Bugwere where there have been 951 more deaths than births in the last two years, and in Busoga where an increase of population of 4,184 in 1933 has become a decrease of 997 in 1936, the situation, if the registration is to be relied upon, is disquieting. In Bunyoro there was an increase of population for the second successive year.

137. *Still-Birth Rate.*—3,932 as compared with 4,144 in 1935 were registered. This figure is probably valueless, the percentage rate of still-births to births plus still-births ranging from 0·94 in Kigezi to 10·43 in Bunyoro. The rate for the Protectorate was 3·97.

138. *Infant Mortality Rate.*—This rate—158·64 per thousand live births—has been falling since 1926, in which year it was 276 per thousand births. The rate is still very high in West Nile (316·23), Chua (311·79), and Busoga (276·66) but in Buganda (88·76), Teso (92·28), Bunyoro (93·42) and Kigezi (96·41) approaches the standard of European countries.

139. *Maternal Mortality Rate.*—This rate rose from 10·60 in 1935 to 12·28 in 1936. Probably, however, little reliance can be placed on the returns. For example, it is difficult to believe that the rate for the West Nile could be as high as 46·11 per thousand births and still-births.

TABLE A.—RETURN SHOWING BIRTH, DEATH, STILL-BIRTH AND INFANTILE MORTALITY RATES FOR THE UGANDA PROTECTORATE FOR THE LAST SEVEN YEARS.

Province and District.	Birth Rate per 1,000 Population.							Death Rate per 1,000 Population.							Still-Birth Rate per 100 Births and Still-Births.							Infantile Mortality Rate per 1,000 Births.							Maternal Mortality Rate per 1,000 Births and Still-Births.						
	1930	1931	1932	1933	1934	1935	1936	1930	1931	1932	1933	1934	1935	1936	1930	1931	1932	1933	1934	1935	1936	1930	1931	1932	1933	1934	1935	1936	1930	1931	1932	1933	1934	1935	1936
BUGANDA :—																																			
Mengo	14'71	15'85	16'61	17'05	17'49	19'74	19'83	18'66	22'24	22'15	22'44	19'34	21'61	20'56	3'75	5'05	5'34	4'52	3'10	4'22	3'21	125'16	148'71	107'54	124'80	93'29	83'98	91'73	15'11	14'27	13'32	15'71	11'79	12'27	15'42
Entebbe	24'92	17'52	17'84	18'12	18'93	19'06	20'34	24'60	15'21	14'59	15'07	13'29	13'36	16'10	3'58	2'95	1'77	1'52	0'58	1'18	1'33	129'33	100'43	85'36	87'96	72'13	62'33	74'03	6'15	7'17	6'22	6'41	4'76	4'95	6'92
Masaka	26'35	27'97	25'20	29'79	29'92	28'84	33'30	20'68	18'44	17'42	16'64	16'78	16'38	17'62	2'86	3'57	5'39	3'07	4'04	4'48	6'09	106'37	97'41	89'54	96'10	83'03	76'96	76'73	9'30	7'66	5'15	6'90	6'53	5'94	6'95
Mubende	19'22	21'81	20'18	19'36	19'16	20'99	22'02	22'58	19'28	17'99	16'49	19'33	19'12	19'39	3'67	5'28	8'93	6'44	7'19	7'75	5'09	168'39	114'48	113'97	103'87	122'66	120'00	120'87	7'41	4'19	8'98	6'50	5'58	5'34	5'78
TOTAL	19'70	19'70	19'25	20'23	20'67	21'71	23'17	20'77	19'46	18'84	18'62	17'51	18'29	18'77	3'45	4'29	5'37	3'87	3'61	4'37	4'07	128'16	118'21	99'60	105'59	90'92	84'16	88'76	10'23	9'07	9'23	9'75	7'81	7'95	9'60
EASTERN :—																																			
Busoga	37'39	31'84	31'38	31'66	27'49	26'45	23'80	26'38	23'69	22'68	20'82	23'53	24'36	26'37	4'73	6'09	7'97	7'59	7'78	7'65	8'27	267'00	234'93	206'04	202'66	229'65	227'75	276'66	13'28	13'32	13'06	13'84	13'50	13'75	16'12
Budama	37'55	34'24	33'86	36'25	28'70	31'42	32'97	22'75	21'39	16'95	21'39	22'58	24'57	24'93	1'99	1'42	1'83	1'18	0'69	0'63	0'58	264'02	211'05	145'24	123'03	142'43	147'47	174'41	12'72	10'31	11'36	10'36	11'94	12'26	9'29
Bugishu	31'64	43'31	37'82	45'45	30'55	33'52	38'13	21'88	23'75	20'10	24'87	23'25	21'53	26'07	7'37	6'46	5'76	5'32	5'20	5'05	5'03	264'59	231'84	172'86	196'68	272'87	207'00	217'66	17'37	13'94	11'82	11'26	12'48	8'70	11'48
Bugwere	26'85	26'89	29'43	31'96	29'62	28'00	30'45	32'59	25'63	18'82	20'34	28'04	37'27	32'14	4'78	6'95	5'28	5'66	5'70	6'29	5'28	196'63	181'56	134'84	142'58	155'52	188'65	157'92	20'32	16'16	11'79	11'51	12'75	19'72	12'25
Teso	21'87	23'34	23'90	21'93	18'93	16'36	16'30	19'15	23'73	15'53	15'51	18'75	18'31	17'90	0'82	0'87	0'30	0'17	0'32	0'31	0'18	85'03	88'30	87'81	93'77	102'83	97'81	92'28	15'24	13'02	12'39	10'46	12'47	14'47	13'22
TOTAL	30'28	31'17	30'66	32'20	26'47	26'13	26'58	24'26	23'62	19'27	20'22	22'94	24'48	25'05	4'24	4'77	4'96	4'76	4'81	4'82	4'71	223'55	198'13	158'96	163'33	191'54	185'77	199'87	15'33	13'38	12'39	11'91	12'81	13'57	12'91
WESTERN :—																																			
Toro	34'35	24'26	21'17	20'92	22'58	19'98	21'37	24'26	21'70	17'30	16'00	16'76	16'73	20'28	3'58	5'71	5'58	3'81	3'83	3'28	4'01	360'76	377'57	278'54	276'66	190'40	223'29	202'47	16'58	19'25	19'08	14'58	23'18	10'30	12'97
Ankole	38'50	37'51	24'84	21'39	23'17	21'75	26'81	26'91	23'97	19'31	17'25	20'14	20'01	13'98	4'36	4'78	3'89	4'60	4'22	4'34	2'93	286'28	267'48	207'90	162'58	177'54	169'47	103'30	13'78	12'08	8'40	7'74	8'47	7'91	8'58
Kigezi	29'69	37'86	37'37	36'07	33'11	32'97	33'33	13'42	15'74	15'20	12'05	15'81	18'87	12'72	1'56	1'55	0'86	0'97	0'71	1'63	0'94	124'69	139'36	144'44	100'17	152'47	168'91	96'41	15'08	8'74	4'81	5'22	9'82	5'61	5'00
TOTAL	34'55	33'95	27'92	26'13	26'33	25'05	27'56	21'69	21'87	17'41	15'18	17'77	18'73	15'24	3'37	3'83	2'95	2'79	2'68	2'92	2'36	256'57	243'08	194'81	143'88	170'01	180'89	121'14	14'83	12'35	9'15	8'12	12'51	7'43	8'06
NORTHERN :—																																			
Lango	33'27	34'63	38'22	37'27	33'63	37'06	35'63	21'09	26'76	20'66	20'99	28'43	30'06	22'18	2'07	1'31	0'57	1'03	1'53	1'46	2'27	198'09	189'12	132'05	122'66	181'73	133'75	129'97	10'56	10'91	8'13	8'76	8'95	9'72	9'78
Bunyoro	23'26	18'03	19'17	20'38	16'90	17'57	18'96	32'56	21'59	21'33	20'59	18'47	14'56	14'32	17'63	21'13	18'98	16'01	14'69	11'90	10'43	325'51	244'17	172'08	167'46	136'83	105'24	93'42	7'81	4'97	3'33	6'87	5'76	3'51	4'95
Gulu	45'28	40'83	44'90	51'31	50'90	53'71	46'27	27'41	27'57	24'33	26'79	40'56	23'68	24'86	2'71	2'97	2'33	4'35	5'19	5'52	5'63	311'18	365'69	252'14	238'11	325'99	143'94	174'53	11'96	17'22	6'17	5'71	4'19	3'00	5'31
Chua	47'64	53'96	52'57	46'75	46'26	50'44	25'76	24'54	29'18	30'90	24'35	27'60	22'38	11'87	5'73	6'12	5'66	5'59	6'59	5'68	6'30	334'04	327'12	341'89	305'10	356'53	283'03	311'79	23'40	16'96	22'44	17'60	21'35	16'41	17'81
West Nile	28'28	27'80	28'41	25'54	22'66	23'12	20'66	10'79	15'61	11'42	10'00	11'88	9'11	10'27	4'30	3'60	3'56	2'26	2'64	2'68	2'31	225'19	234'19	259'10	243'55	329'84	279'61	316'23	40'70	47'92	23'95	35'27	50'40	20'16	46'11
TOTAL	33'97	32'73	34'58	33'83	31'25	33'40	28'73	20'49	21'37	19'32	18'49	23'10	19'31	16'41	4'83	5'04	4'26	4'19	4'57	4'19	4'25	259'22	258'54	223'33	206'14	271'89	191'31	197'45	20'74	22'39	13'87	15'66	19'26	11'19	17'43
UGANDA PROTECTORATE	29'19	29'18	28'11	28'39	26'05	26'43	26'42	22'06	21'75	18'30	18'43	20'58	20'66	19'60	4'06	4'53	4'46	4'09	4'08	4'19	3'97	223'65	209'71	173'19	160'64	188'53	165'88	158'64	15'74	14'60	11'56	11'81	13'48	10'60	12'28

VITAL STATISTICS RETURN OF THE UGANDA PROTECTORATE FOR THE YEAR 1936 (NATIVE POPULATION ONLY).

PROVINCE AND DISTRICT.	TOTALS FOR THE WHOLE YEAR.										ESTIMATED POPULATION.	RATES FOR THE YEAR.				
	Live Births.			Still Births.	Deaths				Birth Rate per 1000 Population.	% Still Births to Births plus Still Births.		Infantile Mortality Rate per 1000 Live Births.	Maternal Mortality per 1000 Births and Still Births.	Death Rate per 1000 Population.		
					of Children under 1 Year.			of Women in Child Birth.							All other Deaths.	Total Deaths.
	M.	F.	Total.		M.	F.	Total.									
BUGANDA PROVINCE:—																
†Mengo { Mengo ...	3,476	3,490	6,966	231	323	316	639	111	6,474	7,224	351,350	19'83	3'21	91'73	15'42	20'56
Entebbe ...	1,982	1,868	3,850	52	140	145	285	27	2,735	3,047	189,337	20'34	1'33	74'03	6'92	16'10
Masaka ...	3,242	2,975	6,217	403	234	243	477	46	2,767	3,290	186,748	33'30	6'09	76'73	6'95	17'62
Mubende ...	1,687	1,763	3,450	182	219	198	417	21	2,601	3,039	156,740	22'02	5'09	120'87	5'78	19'39
TOTAL ...	10,337	10,096	20,483	868	916	902	1,818	205	14,577	16,600	884,175	23'17	4'07	88'76	9'60	18'77
EASTERN PROVINCE:—																
Busoga ...	4,513	4,704	9,217	831	1,343	1,207	2,550	162	7,502	10,214	337,252	23'80	8'27	276'66	16'12	26'37
Budama ...	2,568	2,575	5,143	30	461	436	897	48	2,944	3,889	155,984	32'97	0'58	174'41	9'29	24'93
Bugishu ...	3,757	3,525	7,282	386	800	785	1,585	88	3,307	4,980	190,983	38'13	5'03	217'66	11'48	26'07
Rugwere ...	2,737	2,677	5,414	302	424	431	855	70	4,789	5,714	177,818	30'45	5'28	157'92	12'25	32'14
Teso ...	2,272	2,182	4,454	8	204	207	411	59	4,422	4,892	273,331	16'30	0'18	92'28	13'22	17'90
*Karamoja ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL ...	15,847	15,663	31,510	1,557	3,232	3,066	6,298	427	22,964	29,689	1,185,368	26'58	4'71	199'87	12'91	25'05
WESTERN PROVINCE:—																
Toro ...	2,193	2,025	4,218	176	437	417	854	57	3,093	4,004	197,420	21'37	4'01	202'47	12'97	20'28
Ankole ...	3,981	3,715	7,696	233	420	375	795	68	3,150	4,013	287,111	26'81	2'93	103'30	8'58	13'98
Kigezi ...	4,368	3,251	8,319	79	451	351	802	42	2,330	3,174	249,661	33'33	0'94	96'41	5'00	12'72
TOTAL ...	10,542	9,691	20,233	488	1,308	1,143	2,451	167	8,573	11,191	734,192	27'56	2'36	121'14	8'06	15'24
NORTHERN PROVINCE:—																
Lango ...	4,135	4,059	8,194	190	556	509	1,065	82	3,955	5,102	230,002	35'63	2'27	129'97	9'78	22'18
Bunyoro ...	1,127	1,046	2,173	253	115	88	203	12	1,426	1,641	114,645	18'96	10'43	93'42	4'95	14'32
Gulu ...	2,531	2,448	4,979	297	466	403	869	28	1,778	2,675	107,582	46'27	5'63	174'53	5'31	24'86
Chua ...	1,201	1,061	2,262	152	355	348	703	43	296	1,042	87,803	25'76	6'30	311'79	17'81	11'87
West Nile ...	2,789	2,571	5,360	127	884	811	1,695	253	715	2,663	259,448	20'66	2'31	316'23	46'11	10'27
TOTAL ...	11,783	11,185	22,968	1,019	2,376	2,159	4,535	418	8,170	13,123	799,480	28'73	4'25	197'45	17'43	16'41
UGANDA PROTECTORATE ...	48,559	46,635	95,194	3,932	7,832	7,270	15,102	1,217	54,284	70,603	3,603,215	26'42	3'97	158'64	12'28	19'60

* The population of Karamoja has been excluded from the total population and from all calculations of rates because no vital statistics are submitted from that district.

† The Entebbe District was amalgamated with the Mengo District on 1st November, 1936.

TABLE C.—TABLE SHOWING INCREASE OR DECREASE OF REPORTED
BIRTHS OVER REPORTED DEATHS FOR FIVE DISTRICTS
FOR THE LAST 20 YEARS.

Year.	Buganda.	Busoga.	Bunyoro.	Ankole.	Toro.	Total Increment.
1917	— 4,385	+ 2,240	— 1,466	+ 857	+ 1,583	— 1,171
1918	— 3,873	+ 1,553	— 2,851	+ 776	+ 1,057	— 2,738
1919	— 5,709	— 3,135	— 2,061	— 1,870	— 176	— 12,951
1920	— 2,204	+ 2,025	— 1,012	+ 496	+ 907	+ 212
1921	— 711	— 1,483	— 997	+ 889	+ 1,896	— 406
1922	— 1,458	+ 2,953	— 891	+ 1,503	+ 1,872	+ 3,979
1923	— 624	+ 2,194	— 856	+ 1,611	+ 1,670	+ 3,995
1924	+ 37	+ 3,295	— 970	+ 2,329	+ 2,924	+ 7,615
1925	+ 1,059	+ 5,726	— 818	+ 3,727	+ 3,253	+ 12,947
1926	+ 1,179	+ 5,314	— 500	+ 2,891	+ 3,602	+ 12,486
1927	+ 3,475	+ 5,703	— 443	+ 4,446	+ 3,955	+ 17,136
1928	+ 1,091	+ 4,656	— 492	+ 4,848	+ 3,686	+ 13,789
1929	+ 1,357	+ 5,572	— 329	+ 4,238	+ 3,505	+ 14,343
1930	— 940	+ 3,799	— 801	+ 3,139	+ 1,571	+ 6,768
1931	+ 213	+ 3,084	— 406	+ 2,945	+ 497	+ 6,333
1932	+ 357	+ 3,322	— 246	+ 1,556	+ 743	+ 5,732
1933	+ 1,474	+ 4,184	— 24	+ 1,167	+ 962	+ 7,763
1934	+ 2,769	+ 1,536	— 179	+ 858	+ 1,143	+ 6,127
1935	+ 3,001	+ 813	+ 343	+ 494	+ 640	+ 5,291
1936	+ 3,828	— 997	+ 531	+ 3,682	+ 218	+ 7,262

European Officials.

140. Only those officials whose names appear in the Protectorate Staff List are shown in Table D. Wives and families are not included

TABLE D.

141. Table showing the sick, invaliding and death rates of European Officials, during the last three years:—

	1934	1935	1936
Total number of officials resident	523	551	570
Average number resident	434	442	462
Total number on sick list	774	816	746
Total number of days on sick list	2,247	2,405	2,914
Average daily number on sick list	6·16	6·58	7·98
Percentage of daily sick to average number resident ..	1·42	1·49	1·73
Average number of days on sick list each patient ..	2·90	2·94	3·91
Average sick time each resident	5·18	5·44	6·31
Total number invalided	3	1	1
Percentage of invalidings to total residents	0·57	0·18	0·18
Total deaths	1	1	..
Percentage of deaths to average number resident ..	0·23	0·22	..
Percentage of deaths to total residents	0·19	0·18	..
Number of cases of sickness contracted away from station	..	No record	..
Number granted local sick leave	22	32	30
Average number of days sick leave for each patient granted local sick leave	16·00	21·06	18·40

142. The most common complaints were:—

Malaria, 325; Diseases of digestive system, 29; Injuries, 93; Diseases of respiratory system, 39; Influenza, 69; Dental caries, 12.

143. Medical Boards were held to enquire into the health of nine European officials, and the following recommendations were made:—

(a) To be granted 3 weeks sick leave in Kenya and to complete a tour in a healthy station 1

(b) To proceed to England for further examination and treatment 4

(c) To be given sedentary employment and to be re-examined by a Medical Board in six months' time.. .. . 1

(d) To be permanently invalided from the Colonial Medical Service and to proceed to England without delay 1

(e) To go on home leave as soon as possible 2

144. *Deaths*.—Nil.

European Non-Officials.

145. 2,330 cases of illness among the European non-official community were treated by Government medical officers. The number in 1935 was 2,095.

146. *Deaths*.—21 deaths were recorded, compared with nine in the previous year; the causes were:—

Heart disease 2	Dysentery followed by collapse 1
Dysentery 1	Blackwater fever 2
Broncho-pneumonia 1	Pulmonary tuberculosis 1
Embolism 1	Laryngitis and thymic enlarge-
S. T. Malaria following prema-	ment 1
ture labour 1	Tin poison 1
Cerebral malaria 1	Acute inflammation of the kid-
Streptococcal pharyngitis and	neys 1
oedema of glottis 1	Cirrhosis of the liver 1
Suicide 1	Chronic meningitis and cirr-
Peritonitis 1	hosis of the liver 1
Pneumonia 1	Pneumonia and myocarditis 1

147. The principal causes of sickness were:—

Malaria, 452; Diseases of digestive system, 50; Injuries, 142; Diseases of respiratory system, 74; Influenza, 98.

Asian Officials.

148. In Table E, officials of the Kenya and Uganda Railways and Harbours, artizans employed by the Public Works Department on temporary agreement, and the wives and families of all officials are omitted.

TABLE E.

149. Table showing the sick, invaliding, and death rates of Asian officials during the last three years:—

	1934	1935	1936
Total number of officials resident	360	359	367
Average number resident	321	304	306
Total number on sick list	609	622	542
Total number of days on sick list	1,529	1,637	1,850
Average daily number on sick list	4·19	4·48	5·07
Percentage of daily sick to average number resident ..	1·31	1·15	1·66
Average number of days on sick list for each patient ..	2·51	2·63	3·41
Average sick time each resident	4·76	5·37	6·04
Total number invalided	4	3	6
Percentage of invalidings to total residents	1·11	0·83	1·63
Total deaths	2	..	1
Percentage of deaths to total residents	0·56	..	0·28
Percentage of deaths to average number resident ..	0·62	..	0·34
Number of cases of sickness contracted away from station	..	No record	..
Number granted local sick leave	7	7	2
Average number of days on sick leave for each patient granted sick leave	17·71	18·29	19·00

150. The most common diseases were:—

Malaria, 340; Diseases of respiratory system, 22; Injuries, 21; Diseases of digestive system, 26; Influenza, 66.

151. Medical Boards were held on six Asian officials, with the following results:—

(a) To be invalided out of the Service 6

152. *Deaths*.—One. Asphyxia from drowning.

Asian Non-Officials.

153. 7,024 cases of sickness among the non-official community were treated by the Government medical staff. The number in 1935 was 7,337. The principal causes of sickness were:—

Malaria, 2,278; Diseases of digestive system, 135; Injuries, 119; Diseases of respiratory system, 573; Influenza, 117; Diseases of the eye, 47; Dental caries, 54; Boils and abscesses, 96.

154. 89 deaths were reported to this Department. The causes were:—

Blackwater fever	26	Fracture of skull	1
Malaria	12	Burns	1
Pneumonia	17	Morbus cordis	1
Puerperal sepsis	3	Miliary tuberculosis	1
Injuries	3	Enteritis	2
Plague	2	Asphyxia from drowning	1
Enteric	2	Scalds	1
Prematurity and marasmus	2	Cancer of liver	1
Influenza	1	Heart failure following abortion	2
Tetanus	1	Pernicious anaemia	1
Encephalitis lethargica	1	Cancer of uterus	1
Cyclical vomiting	1	Diabetes	1
Septicaemia	2	Unknown	1
Infantile diarrhoea	1		

African Officials (African Civil Service).

TABLE F.

155. Table showing the sick, invaliding, and death rate of African Civil Servants, excluding wives and families:—

	1934	1935	1936
Total number of officials resident	121	140	178
Average number resident	121	140	178
Total number on sick list	23	88	58
Total number of days on sick list	100	276	229
Average daily number on sick list	0·27	0·75	0·63
Percentage of daily sick to average number resident ..	0·22	0·54	0·35
Average number of days on sick list for each patient ..	4·35	3·14	3·95
Average sick time each resident	0·83	1·97	1·29
Total number invalided	1	..	..
Percentage of invalidings to total residents	0·83	..	..
Total deaths	2	..	1
Percentage of deaths to total residents	1·65	..	0·56
Percentage of deaths to average number resident ..	1·65	..	0·56
Number of cases of sickness contracted away from station	..	No record	..
Number granted local sick leave	..	..	..
Average number of days on sick leave for each patient granted sick leave	..	..	..

156. The most common diseases were:—

Malaria, 24; Diseases of the respiratory system, 8; Injuries, 5; Myalgia, 3; Influenza, 5.

157. *Deaths*.—One, of Pneumonic Plague.

SECTION III.—HYGIENE AND SANITATION.

(A) General Review of Work Done and Progress Made.

I. Preventive Measures.

(a) MOSQUITO AND INSECT-BORNE DISEASES.

158. *Malaria*.—Africans trained in searching for mosquito larvae and adults and capable of identifying the commoner species are now available in most towns and have assisted considerably in control measures. Anti-malarial swamp planting was continued in the Eastern Province by the Forest Department, and reference should be made to its Annual Report for detailed information.

159. At Kampala, the Agricultural Plantation at the head of the Kitante was drained, and its reclamation will eliminate a potent anopheline breeding place. Consolidation work, consisting of the making of sub-soil drains, filling in wells and depressions containing water and the treatment of eucalyptus plantations in areas already partially reclaimed, was also done. A further measure was the routine oiling of and application of Paris green to about eight miles of earth drains.

160. At Jinja, the revetting of the lake shore was completed as far as Fishermen's Point, and considerable progress made with filling up the low lying area of the shore adjoining the newly-cleared edge. At Soroti, the measures described in full in the Annual Report for 1935 for dealing with storm water were continued, but several still remain to be done. At Gulu, Arua and Tororo, agricultural pipes were used for sub-soil drainage and proved effective. As yet, well-made pipes are difficult to obtain in the Protectorate, but certain Missions now manufacture them and it is hoped that shortly larger stocks will be available.

161. *Trypanosomiasis*.—The Victoria Nyanza area remained free of the disease but, in order to incur as little risk as possible of re-infection of the area, clearings were maintained and the sleeping sickness regulations enforced. Re-settlement of a strip of land one mile wide along the lake shore from Jinja to the top of Fielding Bay and of another west and south of Mjanji was permitted under controlled conditions. Fuel contractors who were found to be cutting in the closed portion of the Mpologoma area were removed.

162. In the Lake Edward—George area, no change in the methods employed was made, and owing to an increase in the population of the small area in which sleeping sickness is found, breeding places of fly are being destroyed by re-settlement and it is believed that the disease will shortly be eradicated. In the Katwe and Katunguru area it was found possible to permit extension of fishing facilities under strict conditions.

163. In response to a demand by the Acholi for additional land on which to settle, the entomologists attached to the Agricultural Department carried out surveys of part of the restricted area. Consequent on

the report submitted, expansion was allowed over approved areas under the following conditions:—

(1) The advance of the people into the new areas shall be very carefully controlled and shall be very gradual.

(2) Clearings at watering places shall be rectangular, 400 yards in length measured along the stream, and 50 yards in depth on both banks.

(3) All clearings shall be stumped and planted with short grasses. (No exceptions can be permitted to this condition).

(4) Sufficient clearings shall be completed within three months of occupation to render the population in the opinion of the Senior Medical Officer, Northern Province, reasonably safe.

(5) Prior to moving into the area all the immigrants, men, women and children, shall be examined for trypanosomiasis and no one if suspected, even though microscopic examination proves negative, shall be permitted to enter the area until examination after a minimum period of six months confirms absence of the disease.

(6) No person who has suffered from trypanosomiasis shall be allowed into the area, even though declared cured.

164. In Madi, eleven cases were reported at Obongi by the Senior African Medical Assistant. This outbreak was investigated by a medical officer who concluded that it was caused by the Sultan of Obongi who travelled extensively and had become infected. He was thought to be harbouring an arsenic-resistant strain of trypanosome, and although, after six injections of Bayer 205 followed by injections of tryparsamide twice weekly for two weeks and then once weekly, his blood was found to be clear, he relapsed and died in Moyo hospital with trypanosomes again in his blood. As nearly all the cases occurred in children who do not hunt, fish or travel far afield, and as the places to which they would be likely to go for water are cleared for the protection of the people from fly, it is unlikely that the outbreak had spread from Rhino Camp or Aringa, and direct infection by some other vector such as a biting fly was suggested. The epidemic was quickly arrested and at a subsequent inspection of the people in November, only two suspected cases were found. Most of the clearings in this area were found to be in a satisfactory condition.

165. During the year, a medical officer was stationed at Aringa and as a result much more intensive control and examination was possible, leading to a great increase in the number of cases discovered. In all dangerous areas, inspection of the people by a medical officer accompanied by an administrative officer was carried out every three months, the number examined being checked by the sleeping sickness register in which every member of the population is recorded.

166. In attempts to control the disease on the River Koich, the main centre of infection, three sorts of clearings were tried: "block" indicating a clearing at least 50 yards back each side of the river, and 400 yards or more long; "rod" approximately ten to fifteen yards back and of any stated length; and "dumb-bell" a rod clearing with a block clearing at each end. Of these clearings the "dumb-bell" is reported

to be the most effective though the fly returns if the grass in the "rod" portion of the clearing is allowed to grow three feet high.

167. The following existing clearings were maintained by grass cutting four times during the year:—

Moicha I	..	..	500 yards by 200 yards.
Moicha II	..	..	500 yards by 200 yards.
Moicha III	..	..	400 yards by 200 yards.
Giro	..	..	400 yards by 200 yards.
Moicha I to II	..	..	1,800 yards by 40 yards.
R. Giro	..	..	800 yards by 40 yards.

The following new clearings were made and slashed twice during the year:—

Pena II	..	..	1,000 yards by 40 yards.
Moicha III	..	..	600 yards by 40 yards.

Rod clearings were made on all side streams in this River system.

168. Hand catching of fly between the clearing at Pena II and Moicha I was carried out, and as a result the density in this area was reduced from 27 per boy per diem in July to 13 per boy per diem in December, with three boys working.

169. The proposed experiment of the injection of prophylactic Bayer 205 was not carried out because no area could be found into which it could be guaranteed that no persons from outside would come, and also because the Administration felt that the people might dislike this method and move away from the area possibly into forbidden places. The labour employed to make clearings was, however, protected by injections of Bayer.

170. To control movement of the population, a pass system whereby all people are examined before they are allowed to travel was introduced. The pass is obtained from the chief and counter-signed by a gland boy who examines the holder, with the microscope, if necessary, to ensure that he is not suffering from sleeping sickness. If the examination is positive, the chief is informed and the case either awaits the arrival of the itinerant orderly, who visits each of a number of centres once a week, is given an injection of Bayer 205, or is sent to the nearest treatment post. The course of injections is continued at the most convenient place. The establishment of gland posts at Udupi, Ambala, mouth of river Kii, Moicha (two), Koboko, Gimere and Aupi, was approved.

171. Towards the end of the year, a fresh outbreak at Terego was discovered, and at a single inspection 89 fresh cases were found. To control the epidemic, it was decided to clear the banks of the rivers Anau and Aza.

172. *Plague.*—The measures in use in Busoga, a full account of which was given in the Report for 1935 were continued; as the incidence of plague in that district was much lower than in the previous year, these methods were apparently successful, and their introduction into other districts is under consideration.

173. In Kampala, close supervision over the rat-proofing of all new go-downs was maintained, and a permanent rat gang was employed. Systematic trapping was attempted, but the results were disappointing. Altogether 1,757 rats were killed of which 1,570 were examined. Two were plague infected.

174. It is believed that the only effective method of dealing with plague is to build the rat out of human habitations. For this purpose, building in pisé-de-terre appears to be quite satisfactory and is cheap.

175. It is also a definite part of the policy of the Department to educate the Native Authority to be responsible for preventive measures in the districts, with the help and supervision of the medical officer of health and his staff.

176. Towards the end of the year, two male ferrets were imported by the Government Entomologist with a view to training them for rat catching, but this had not been completed by the end of the year.

177. *Yellow Fever*.—Early in 1936, specimens of blood taken from 39 people living near Kiriandongo in Bunyoro and near Padibe in Chua, at both of which places persons whose serum was immune to yellow fever had previously been found, were sent to the Rockefeller Foundation Laboratory at New York. Of these, the sera of a male aged about 40 and of a female about 18 from the Kiriandongo area, and two males aged 16 and 37 from the Padibe area, were found to show immunity. Nine of these bloods also showed immune bodies to Rift Valley fever. In the former place, the population lives in comparatively close contact with monkeys, but this is not the case at Padibe, where, however, the males go into forest areas some distance away for hunting. As in South America certain species of monkey have been shown to have an acquired immunity for yellow fever, samples of blood from 22 monkeys caught or killed in the forests of Bunyoro were sent to the Foundation and five of these showed protection. Specimens of blood from three oxen from Lokung in Chua, and five from Karamoja were also sent, and all except one from Karamoja showed immunity to yellow fever. Blood from sheep and pigs, however, was negative. In May, the District Medical Officer, Masaka, Dr. A. G. Mackay, noticing that jaundice was becoming increasingly common among cases of "fever" in Masaka hospital and at Kalungu dispensary, sent samples of blood from patients suffering, some from fever and jaundice and some from fever alone. Four of these samples showed immunity to yellow fever. This result, of course, does not prove that any of these patients were suffering from yellow fever as their sera may have been positive before the onset of this illness which may have been leptospiral in origin. In July a patient at Mbarara, who was thought possibly to be a case of yellow fever, died. Although the post-mortem appearances were not in the least typical, sections of the liver and kidney were sent to New York, but were found not to show the changes characteristic of yellow fever. During the year viscerotomes were issued to nearly all stations with instructions that pieces of liver from persons dying within ten days of any illness with fever and jaundice should be taken, but in every case examined the organ showed none of the changes characteristic of yellow fever.

178. The presence of *Aedes aegypti* has been reported from every township of any size in the Protectorate but during the year special efforts were made to reduce the numbers of this mosquito.

179. As a result of the attention which the subject of yellow fever received at the Pan-African Conference, held at Johannesburg in November, 1935; of the discussions which took place when Dr. Soper, who represented the Rockefeller Foundation at that Conference visited

Uganda; and of the immunity tests which had been already carried out in the Protectorate, the Rockefeller Foundation agreed to send a commission to Uganda to investigate the whole position, with particular reference to:—

(a) the delimitation of so-called “Silent” endemic areas of yellow fever in the Protectorate;

(b) the determination by investigation as to whether or not cases of yellow fever are occurring but escaping detection, and if present whether it is of the “jungle” type; and

(c) to investigate the presence or absence of animal hosts of yellow fever.

A commission, with Dr. A. F. Mahaffy as Director, arrived in Uganda in October, 1936, and was housed in the Human Trypanosomiasis Institute which was completed for the purpose of the investigations.

180. In view of the fears of other countries of the possibility of the carriage by aeroplanes of infected mosquitoes, all aeroplanes on arrival at Entebbe are sprayed with a special pyrethrum mixture, recommended by the League of Nations, consisting of standard extract of pyrethrum 1 part, kerosene 16 parts and carbon tetrachloride 68 parts, 5 cubic centimetres of which is sufficient to disinfest 1,000 cubic feet after five minutes exposure. As no person whose blood shows protection has been found nearer than 80 miles from Entebbe and as there is no human habitation within at least 200 yards of the aerodrome the possibility of the carriage from Uganda of a *stegomyia* mosquito, much less of an infected one, by an aeroplane is remote in the extreme.

(b) EPIDEMIC DISEASES.

181. *Cerebro-spinal Meningitis*.—The methods of segregation of contacts in temporary grass shelters described in last year’s Report were continued and as reported in another section a very great decrease in the number of cases was recorded.

182. *Smallpox*.—As reported in the 1935 Report, an imported case of smallpox was discovered in Kampala on Christmas Day. He, together with all discoverable contacts was immediately isolated, and vaccination was carried out in and around Kampala. Unfortunately, further cases occurred among the native population and these and their contacts were at first quarantined in the isolation block at Mulago hospital, near which, however, secondary cases were found, and it was quickly realised that isolation at Mulago could not be made effective for such a disease as smallpox. As a consequence, a temporary isolation hospital to which all patients and contacts were transferred was built on a small promontory at Port Bell and completed by the middle of January. Sporadic cases in Mengo District occurred until the middle of March, but there was no further spread of infection in Kampala itself. On February 20th, a Munyaruanda was discovered to be suffering from smallpox in Masaka District, and a few days later four further cases among Baganda were found. An isolation hospital was rapidly built near Masaka, and all patients and contacts quarantined. A special nursing sister was engaged to take charge of these hospitals, and was posted first at Port Bell and later at Masaka. No cases occurred in the Protectorate after the third week of March. In Mengo, Entebbe and Masaka Districts, intensive compulsory vaccination campaigns under the Public Health Ordinance

were instituted immediately the disease declared itself. In Kampala township, 37,837 persons had been vaccinated by the middle of January, and the Medical Officer of Health reported that practically 100 per cent. of the non-native and more than 90 per cent. of the native population of Kampala and environs had been protected by the end of the month. In Mengo and Entebbe Districts, more than 338,000 persons were protected, and in Masaka District over 240,000 vaccinations were performed in a few weeks. Though it was impossible to check results at the time, the District Medical Officer, Masaka, reported that from observations made later in the year he was confident that at least 85 per cent. of the population of the district were protected.

183. Vaccination posts were set up on all roads leading out of Kampala and all travellers vaccinated, while vigorous campaigns were prosecuted in nearly every district in the country, except in those parts of the Northern Province in which the majority of the population had been protected in the previous year.

184. The following table gives the number of vaccinations which were performed. As during the intensive vaccination campaigns, it was found impossible to check the results, only the number performed together with the population of each district is given. All medical officers reported that, from observations they were able to make later, the large majority of vaccinations must have been successful.

Province and District.					Population.	Number of vaccinations performed.
BUGANDA PROVINCE—						
Entebbe District	..	..	..	..	189,337	151,842
Mengo District	..	..	..	..	351,350	187,436
Masaka District	..	..	..	..	186,748	245,589
Mubende District	..	..	..	..	156,740	2,528
TOTAL	..	..	..	..	884,175	587,395
EASTERN PROVINCE—						
Busoga District	..	..	..	..	387,252	111,897
Bugwere and Bugishu Districts	..	..	..	..	368,801	71,039
Budama District	..	..	..	..	155,984	76,620
Teso District	..	..	..	..	273,331	23,387
TOTAL	..	..	..	..	1,185,368	283,033
WESTERN PROVINCE—						
Ankole District	..	..	..	..	287,111	86,290
Toro District	..	..	..	..	197,420	82,956
Kigezi District	..	..	..	..	249,661	1,657
TOTAL	..	..	..	..	734,192	170,903
NORTHERN PROVINCE—						
Bunyoro District	..	..	..	..	114,645	29,327
Chua District	..	..	..	..	87,803	79,563
Lango District	..	..	..	..	230,002	73,699
TOTAL	..	..	..	..	432,450	182,589
GRAND TOTAL	..	..	..	..	3,236,185	1,223,920

NOTE.—The number of vaccinations exceed the population in the Masaka District, because posts were placed on all roads and large numbers of Banyaruanda on their way to Buganda were vaccinated.

185. No vaccinations were performed in the districts of Gulu, West Nile or Madi, as practically the whole of the population of these districts was vaccinated in 1935. In future, it is intended to vaccinate as far as possible the children born in each year in order that a protected population may grow up.

(c) HELMINTHIC DISEASES.

186. Ascariasis and ancylostomiasis are common in every district in the country. Persons harbouring these parasites are usually discovered while under treatment for other conditions. Anti-helminthic drugs are always administered but, until the use of pit latrines is a great deal more common than it is to-day, re-infection at an early date is almost certain. Preventive measures are directed by medical officers, sanitary inspectors and African health orderlies towards the provision and use of latrines by the native population and a considerable measure of success has been attained. To-day, at ginneries and schools where a few years ago latrines were non-existent, their provision and use are almost universal.

187. Tapeworm is extremely common in the great cattle districts of the Western Province. At those township markets where meat is inspected, infected carcasses are detected and destroyed.

188. Dracontiasis is confined to the Nilotic districts of the Northern Province and particularly to Chua and Madi Districts. Great efforts are being made to protect rural water supplies and, as shallow water holes are replaced by properly protected wells, the incidence of guineaworm should be reduced.

II. General Measures of Sanitation.

189. The water-borne sewage scheme for the commercial area of Kampala was commenced during the year, and, it is hoped, will be completed by the end of 1937. The single bucket system is still in use in the larger townships and is gradually being extended to minor townships. At schools, ginneries, factories, etc., deep pit latrines are the usual form of sanitation.

190. The provision of a piped water supply to the townships of Entebbe and Mbale was commenced. At both places, a septic tank system of sanitation is to be applied to the official houses, Government having accepted the principle that, where there is a piped water supply, a water-borne system of sewage should be installed. In rural areas, the protection of water supplies was continued, and in most districts a properly covered-in well, fitted either with a pump or with an outflow pipe, is gradually replacing the dirty, shallow hole from which water is obtained by dipping. In Busoga, a water boring company was employed by the Native Administration, and put down 32 bores of which 27 proved satisfactory. The Health Department constructed a surface spring well at Iganga.

191. Clear water supplies are much appreciated by the general populace who will walk long distances or even travel by motor bus to obtain water from a good well.

III. School Hygiene.

192. After consultation with the Director of Education, Rules were drafted under the Public Health Ordinance, laying down the size, standard of ventilation and amount of floor space per pupil for all future school rooms, dormitories, kitchens, etc., together with the latrine accommodation to be provided. These were accepted by the Advisory Council on Native Education and the necessary legislation to sanction them is to be enacted. Rules with regard to the notification of infectious disease in schools were issued.

193. In nearly every district, frequent visits to schools were made by medical officers or their assistants. Sanitary defects were reported to the school authorities, and in many cases were rectified, though owing to lack of funds the improvement in the sanitation of many schools is slow. Most medical officers reported, however, a gradual improvement in this respect. In Busoga, funds were provided by the Education Board to build at four schools an improved type of headmaster's house. Medical examination of the children in some of the schools was carried out in a number of districts and where possible, treatment given for the defects found. Two conditions, caries of the teeth and trachoma, were particularly prevalent. In Busoga, the problem of trachoma among the boarders in the Mission schools was tackled by classifying sufferers into three classes those requiring treatment by silver nitrate, those by mercury perchloride and those by zinc sulphate. Bottles of these lotions were issued to the European in charge who undertook to supervise the treatment.

194. The following height and weight measurements for Baganda schoolboys were worked out by Dr. A. G. Mackay, District Medical Officer, Masaka. He pointed out that as in many cases the age of the boy was not accurately known, the figures can only be a rough guide. They are compared with figures obtained in 1932 for Banyoro schoolboys:—

Age.	Baganda.		Banyoro.	
	Height in inches.	Weight in lbs.	Height in inches.	Weight in lbs.
5	44	45	..	..
6	46	48	..	..
7	48	52	..	..
8	49	56	..	..
9	49	57	50·41	57·61
10	53	67	51·86	58·20
11	54	71	53·57	66·85
12	55	73	56·22	70·77
13	57	78	57·93	76·64
14	59	89	60·17	85·37
15	61	99	63·07	97·56
16	63	110	65·60	116·39
17	65	120	66·80	120·86
18	66	134	67·47	124·90
19	66	135	..	..
20	68	145	..	..

195. According to these figures the height and weight of the two tribes differ considerably. The Munyoro though generally taller, as one would expect from the difference in physique, is lighter.

196. The Medical Officer of Health, Kampala, reported that the annual medical inspection of 354 pupils at the Government Indian school revealed that 71·4 per cent. of children had one or more physical defects. Diseases of the teeth and gums, of eyes (particularly trachoma), visual defects, chronic malaria, enlarged tonsils and adenoids, and subnormal nutrition were common.

197. Milk, which has become available from a stock farm of the Veterinary Department is to be issued to the children attending one of the schools in Mengo District. The experiment will be under the supervision of a medical officer who will make careful observations on the results of the issue of this important item of diet.

IV. Labour Conditions.

198. Though the labour employed at ginneries is still housed mainly in temporary huts, the standard of housing for the African has improved considerably in the last two or three years. The accommodation for the Asiatic personnel is, however, often deplorable. Feeding of labour is still generally unsatisfactory.

199. During the construction of the Fort Portal—Bwamba road by Government, the labour was housed and fed in accordance with the conditions laid down in the draft Rules dealing with the housing and feeding of labour. Little contract labour was employed, the majority of the men returning to their own homes either daily or at week-ends, but the full quota of 1,500 porters per month was easily maintained, and there was little sickness, severe outbreaks of enteritis and dysentery being completely absent. This experience proves that, given good conditions, no difficulty will be found in obtaining labour, and that, if food is properly cooked, intestinal disorders will not occur. An Asian Sub-Assistant Surgeon was appointed to be in charge of the health of the labour and of the sanitation of the camps. After he resigned a Senior African Medical Assistant took his place. It is pleasing to be able to record that a large employer of labour in the Eastern Province built a small hospital; engaged an Indian Dispenser to look after the hospital and to supervise the sanitary arrangements of the camps; employed special cooks; and made arrangements for an adequate supply of boiled drinking water. Prophylactic quinine was also issued. At this factory as on the Bwamba road, the incidence of intestinal complaints and malaria has diminished greatly. Though the road camps of the Public Works Department are still in many cases below the standard demanded for ginneries, a great many of the old type of huts are gradually being replaced by sanitary buildings.

V. Housing and Town Planning.

200. In Kampala, the Medical Officer of Health reported that the type of Asiatic dwelling showed improvement of design, and that where there are no township drains, waste water was being disposed of within plot boundaries in soakage pits, grease traps being provided to extend the life of the pits. There was also some improvement in the general standard of the Asian bazaars in the larger townships; conditions in some of the smaller ones are still bad, though the building rules for any new dwellings were strictly enforced. In former days overcrowding and

overbuilding of plots was the rule rather than the exception and these conditions still obtain. In some of the smaller townships, pit latrines are being replaced by a bucket system.

201. The slum area in Jinja township mentioned in last year's Report was cleared during 1936. In September, when the notice to evacuate all huts expired, the inhabitants were removed, all buildings destroyed and the area burnt over. The area was then surveyed, and during 1937 it is proposed to mark out plots and to erect a few model buildings of pise-de-terre.

VI. Food in Relation to Health and Disease.

202. During 1936 a combined agricultural and health survey of two *atongoles* in Teso by Messrs. M. G. de Courcy-Ireland and H. R. Hosking, of the Agricultural Department, and Dr. L. J. A. Loewenthal of the Medical Department was undertaken. The results may be summarised as follows:—

In the *atongoles* of Ajuluki where the density of population per square mile was 143, and where no fish and little meat is eaten, nutritional disease was of much greater prevalence than in Opami where the density of population per square mile was only 82, and where fish was a regular article of diet. Overcrowding, together with a purely vegetarian diet has an adverse effect on the nutritional health of the community.

In Teso, the cattle are looked upon as capital and are used for the payment of dowry. It is suggested that the Teso should be encouraged to slaughter the older bullocks for food. This would be a revolutionary idea to them.

The remedy for the overcrowding is soil conservation, improved crop rotation and more use of the cow population for milk.

203. The full account of this investigation has been issued from the Government Press under the title "The Agricultural Survey Committee Nutrition Report No. 1—Teso".

204. As has happened in the past few years, cases of scurvy occurred in Lango, and in addition the District Medical Officer reported cases of Vitamin A deficiency. The use of germinated peas and beans and the consumption of native green food stuffs such as spinach was insisted on for prison diets and strongly recommended at schools and missions. No specific deficiency diseases are reported from other districts but medical officers for several years have commented on the poor physique of the African, ascribing it largely to an inadequate diet. It is generally agreed that a large proportion of tropical ulcers are of dietetic origin. 26,365 cases of ulcer were reported from hospitals and the three dispensaries with a Senior African Medical Assistant-in-charge. Had the figures from the other dispensaries been included, the number would have been very much larger.

205. Milk is supplied to most of the government stations and to all the minor townships by owners of small herds and is produced under far from hygienic conditions.

206. It is true that the transition from the whisky or beer bottle to a container of an approved pattern is taking place more quickly than

was expected, but in most cases cattle are milked in surroundings which are far from clean and adulteration of the milk with water is common.

207. The Kampala Dairy Company who supply some of the milk for Kampala erected a permanent milking shed, a bottle filling and washing room and a cloak room for milkers at their dairy at Port Bell, but even in Kampala except where it is under European supervision milk is by no means pure. Indeed the Medical Officer of Health reported that, out of 60 samples analysed, over half were found to be adulterated to an average extent of 18 per cent. The Township Authority is advising the prohibition of the door-to-door hawking of milk except of that from dairies which are approved by them. They propose to confine the sale of all other milk to the market and to three established selling depots.

208. Conditions in the markets in the Government stations of the Protectorate are steadily improving, but in several townships, notably Masindi and Mbale, the markets are both dilapidated and inadequate. In Kampala, the slaughter house has been recently reconstructed but is still unsatisfactory. A special sub-committee of the Township Authority, advised by the Veterinary and Medical Departments, is to take steps to provide a modern and up-to-date abattoir. The improvement in the general conditions in those markets which are under the control of the Native Administrations was continued during the year.

209. Much of the food exposed for sale in Bazaars is unprotected from dust and flies. The protection of food from contamination is strongly urged by medical officers and sanitary inspectors and covered containers are gradually being brought into use. Premises where food-stuffs are prepared and sold such as butcheries, bakeries, restaurants, etc., are subjected to regular inspection and particularly in the larger towns, improvements in the sanitary condition is noticeable.

B. Measures Taken to Spread the Knowledge of Hygiene and Sanitation.

LANGO SHOW.

210. This, probably the most successful welfare exhibition yet held in Uganda, was organised by the Provincial Administration assisted by the Medical, Agricultural and Veterinary Departments. It was held on a site in juxtaposition to the township of Lira from November 18th to 24th, 1936. The Lango, though a primitive people, are prosperous and one of the objects of the exhibition was to show them the advantages of spending their wealth in such a manner as to obtain a profitable return in improved health and efficiency. It was necessary that the lessons to be taught should be few and that they should be demonstrated as simply and clearly as possible. The primary lessons were the benefit of good housing, of crop rotation and of breeding from good stock.

211. The planning of the area on which the exhibition was held provided for the later development of a permanent native village and all the buildings erected will remain to form the nucleus of such a settlement in which only model dwellings will be allowed. The houses were built by the *pise-de-terre* method which is well adapted to local conditions, and which, it is believed, is the solution of African housing of the future.

In order to train as many people as possible in this method of building, peasants drawn from widely separated parts of Lango were given three weeks' instruction and then left to complete the house on Plot 1 without further supervision. Though not perfect, this building was structurally sound, and demonstrated that the erection of a pise-de-terre house is well within the capabilities of the ordinary African. As building in this country is often delayed by heavy rain, and as the African strongly objects to hard work in the hot sun, a method was devised of constructing the roof of the building on the verandah poles in the first place and then erecting the walls of the house under it, thus securing protection of the workers from sun and rain.

212. A description of the plots, the numbers of which refer to the plan, follows:—

Plot 1.—This plot was too congested and the pise house though structurally sound showed certain defects. A model kitchen, latrine and store were also shown.

Plot 2.—Here the pise house, though still not perfect, was an improvement on that on plot 1. It was put up by men whose only previous experience of building this type of house was in finishing that on plot 1. There were the usual outhouses.

Plot 3.—This showed a model family dwelling, furnished but not occupied. The furniture, which was made by the Elgon Technical School, included a plank bedstead, easily kept clean and free of bugs. There was also a simple baby cot of the "Treasure Cot" type provided with a mosquito net and on the back verandah a baby pen in which an infant can play in clean surroundings instead of in the dirt. As far as possible articles such as gourds and water pots which are in every-day use by the Lango, were utilised as household utensils. Care was taken that the furniture should be acceptable to the habits and purse of the Lango.

Plot 4.—This showed a model house, together, with two unfinished latrines to demonstrate the alternative methods of construction, one being a borehole made with the Lang earth-borer, and the other a simple pit dug by hand labour, 20 feet deep with a surface opening 6 feet by 2 feet. During the exhibition the house was used to show that with the simplest materials, clean and safe conditions for a confinement are possible. A mother was in the bed, with her baby in a cot, and a midwife was in attendance to lecture on and demonstrate the bathing and care of the infant. A baby's bath was improvised from a calabash, which is much used by the Lango, in a wooden frame.

On *Plot 4A* a baby show was held on four days of the exhibition. The first day was for toothless babies, the second for teething babies, the third for toddlers, and the fourth for families consisting of father, mother and not less than three children. The total number of babies brought up for competition was nearly 800. A suitable gown for nursing mothers was on sale and eagerly bought by the women.

Plot 5.—Showed growing crops of foodstuffs normally eaten by the Lango, together with the dietetic value of each, and the foods necessary for a balanced diet.

Plot 6.—Demonstrated a pise-de-terre house in course of construction. This attracted large numbers of interested people. A pamphlet on



Sim Sim na Njugu.

Viazi	Maharagwe

Kaperanda

	Muhindi
Majani	Majani

Pamba ya Augusti

Pamba ya June

LANGO SHOW.

Pamba ⑧

Chakula ⑤

Chakula

Njia Kufika Boro Boro

Njia Kufika LIRA

prise-de-terre building was available for distribution, the demand far exceeding the supply.

Plot 7.—Showed a model prise-de-terre hut of the best type.

Plot 8.—Consisted of cotton crops with the dates of planting and the plants properly spaced to ensure the best yield.

Plot 9.—Demonstrated a model square hut built in prise-de-terre, containing cheap rat-proof food containers; a model wattle and daub round house suitable for labour camps; and as a contrast the present type of house badly constructed, infested with rats, dark and dirty, with livestock living in close contact with man. The old “Ot Otogo” hut on stilts with a very small entrance and no ventilation, into which it was the Lango custom to crowd the young men at night, was shown as an example of a custom which is, fortunately, now a thing of the past.

Plot 10.—Was a veterinary exhibition of the best cattle, sheep, goats and fowls in Lango, all of which had won prizes in district competitions held previous to the opening of the Show.

Plot 11.—Showed a model butcher’s shop in which a clean butcher was selling clean meat in clean surroundings. The shop contained an airy, fly-proof meat safe and furniture adapted both for cleanliness and hard wear. Every part of the shop was well-lighted so that no dirt could lurk undetected. A soakage pit for washing was provided.

Plot 12.—Demonstrated a model smallholding of nine acres comprising half an acre for the homestead which consisted of house, kitchen store, latrine, and rat-proof granary, and two agricultural areas of four acres each separated by a half-acre tree plot. This smallholding can be worked by one man with the assistance of his wife and family. This exhibit demonstrated the proper rotation of crops. At present, a Lango settles on a plot of land for a year or two and when the land becomes unproductive moves on. In these circumstances he cannot be expected to build a good, permanent house. By observing proper rotation of crops, he will be enabled to stay on the same plot for many years, and he should then be able to erect a proper house.

Plot 13.—Showed a simple but effective type of incinerator constructed from an old 40 gallon oil drum.

Plot 14.—Was the stadium on which various competitions and entertainments such as drilling, band playing, school singing, native songs and dances were held.

Plot 15.—Contained the stalls of commercial firms at which many useful articles were on sale.

Plot 16.—Was a veterinary exhibition of cattle showing how the breed can be improved by crossing and proper feeding.

Plot 17.—Showed a model well, lined with cement cylinders, properly enclosed to prevent contamination, and as a contrast the dirty watering hole so common to-day.

Plot 18.—Was a demonstration by the Government Entomologist, which consisted of the following exhibits:—

- (i) Rats and fleas in relation to plague, showing that rats prefer dirty to clean houses; living and stuffed specimens of important species of Uganda rats; rat-proof storage tins.

(ii) Mosquitoes: the breeding places of different species; larvae; their life history.

(iii) Flies: specimens; their habits; fly-proof containers.

(iv) Living *Spirillum* ticks, with posters dealing with relapsing fever.

(v) Living bugs, with posters describing their habits.

(vi) Living lice on dirty clothes and skin garments, and methods of prevention.

(vii) Living *Glossina palpalis* and its pupae, with posters on sleeping sickness.

(viii) Cotton stainers: Cage showing a cotton plant with living *Dysdercus* on half-opened bolls, and its life history.

(ix) Bee-keeping in all its phases.

Plot 19.—Contained the Bacteriologist's exhibit which was divided into two sections—parasitic diseases and food exhibits. The first showed diseases associated with dirty water; schistosomiasis; guinea-worm; anaemia; elephantiasis; tapeworm; ancylostomiasis and ascariasis: the second was a simple demonstration of foodstuffs designed to show the African how to make up a more balanced diet. This exhibit was particularly popular with the crowds.

Plot 20.—Was a *banda* in which were performed plays dealing with hygiene and health subjects, the original compositions of those acting in them. Those conveying anti-plague propaganda were particularly good.

On *Plot 21* were stalls in which the Church Missionary Society, the Verona Fathers' Mission, the Mill Hill Mission, and the Elgon Technical School displayed articles made by their pupils.

213. Special days were allotted for the attendance of school children at the Show and lorries were provided to convey to the Show women and children from the more distant parts of the districts, and large numbers availed themselves of the opportunity of learning practical lessons of hygiene.

214. Demonstrators for every section of the Show were recruited from the schools in the Lango and Gulu districts. After preliminary training by their own masters according to an illustrated syllabus, the demonstrators were brought into Lira a week before the commencement of the Show for their final training. From every section it was reported that they showed great keenness and intelligence. The success of the Show was in great measure due to the able way in which these demonstrators performed their duties. Many of them are in training as teachers and as a consequence will be able to impart the lessons of hygiene which they themselves learnt at the Show.

215. In addition there were competitions for sewing, knitting, mat-making, carpentry, etc., and after the Show was over an essay competition which attracted 40 entrants, on the subject "What lessons have I learnt from the Show in regard to Hygiene"? brought in attempts which though not of high literary standard showed that the lessons of the Show had been learnt.

216. All the buildings together with the stalls were erected under the supervision of Mr. G. Gillanders, Sanitary Inspector, who trained peasants from many parts of Lango in pise-de-terre building.

217. A great deal of preliminary propaganda was undertaken and in this the Senior African Medical Assistants in charge of the dispensaries bore an important part. Ante- and post-natal welfare clinics, attendances at which were good, had been held by the Nursing Sister at Lira for some months, and to these clinics the success of the Baby Show is largely attributable.

(C) Training of Sanitary Personnel.

218. During the year, the question of the establishment for all the East African territories of a Joint Examining Board for African Sanitary Inspectors, which would grant a certificate recognised by the Royal Sanitary Institute, was under consideration.

219. The first class for the training of health orderlies held by the Instructor of Hygiene commenced in January, 1936, and was attended by twelve students, eleven of whom completed the course. Unfortunately, the instructor, Mr. H. Jordan, was invalided to England in the middle of the year, and Mr. F. E. Weaver, Sanitary Inspector, then took over the class. At the examination held at the end of the year the papers for which will be found in Appendix II, all the students passed, the percentage of marks obtained ranging from 86 per cent. to 53 per cent. Reference to the papers will show that a high standard was set, and it is considered that the results were highly satisfactory. After the examination, students were drafted out as health orderlies for practical experience under European sanitary inspectors in various districts. After spending nine months in the field, they will return to Mulago for a three months' revision course, and will then sit for the examination for second year health orderlies.

220. In Busoga and Teso, health overseers who had been trained by the European sanitary inspector in simple methods of sanitation were attached to Saza and Gombolola chiefs to whom they acted as sanitary advisers. In Bunyoro, six men were trained in the protection of water supplies, and constructed seven wells in the district.

SECTION IV.—PORT HEALTH WORK AND ADMINISTRATION.

Not applicable.

SECTION V.—MATERNITY AND CHILD WELFARE.

221. The popularity of maternity and infant welfare clinics continues to increase and more women and children took advantage of the benefits to be obtained by attendance at them. European nursing sisters, who were posted to every district in the Protectorate, except Mubende, Tororo, Acholi, and the West Nile, took charge of clinics at the district hospital and in many cases at dispensaries as well. No new maternity centres were opened during 1936, but those which were being built during the previous year were opened and in several instances were most successful. At the close of the year there were seven rural maternity centres under direct Government control, in addition to numerous dispensaries which undertook ante- and post-natal welfare work without providing beds for confinement.

222. 16,689 women attended clinics for ante-natal supervision for the first time during the year, while in addition 1,504 women who had commenced attendance during 1935 continued their visits. The following table shows the figures for some of the larger centres:—

	1935		1936	
	New cases.	Attendances.	New cases.	Attendances.
Entebbe	687	1,418	385	1,517
Mulago	1,195	4,688	1,122	5,884
Masaka and dispensaries ..	1,483	10,747	1,572	12,900
Mbale and dispensaries ..	666	986	3,327	13,220
Bugembe	438	2,778	467	3,094
Masindi and dispensaries ..	550	6,554	528	6,572
Hoima and dispensaries ..	1,112	8,782	1,006	6,844
Soroti and dispensaries ..	1,969	5,516	2,831	7,828
Mbarara and dispensaries ..	1,298	1,467	577	1,788
Fort Portal and dispensaries ..	2,062	4,498	1,936	4,201
Kabale and dispensaries ..	..	..	588	960
Mubende and dispensaries ..	..	..	708	2,954

The average number of attendances per woman was 4·2 compared with 4·1 in the previous year.

223. Of the women who attended for ante-natal supervision 1,241 were confined in hospitals and maternity centres from which details are available. At the same institutions, 463 women who had not attended for ante-natal supervision were admitted for child birth. The results are compared in the following table:—

	Women who had attended for supervision.	Women who had not attended.
Number of women confined	1,241	463
Pregnancies resulting in—		
(a) Miscarriage	70	62
(b) Still-birth	73	73
(c) Living child	1,098	328
Percentage resulting in living child	88·4	70·8
Number of maternal deaths	11	35

224. Though the lives of many of the women and babies shown in the second column would have been saved had they arrived earlier at the hospital or before interference had taken place outside, yet the figures quoted above are a striking tribute to the value of ante-natal supervision. Had many of the women who received no supervision been seen during their pregnancies, it is probable that in many cases an abnormal labour would have been foreseen and steps taken to bring the woman into hospital at the commencement of her confinement.

225. The majority of the women were confined in their own homes and the following table gives the results of pregnancy as far as these were reported:—

Total	..	..	..	2,666
Miscarriage	..	..	..	75
Still-birth	..	..	..	36
Living child	..	..	..	2,555
Percentage resulting in living child	..	..	..	95·8

The percentage in 1935 was 88·0.

226. Though it is true that, with few exceptions, notably Bunyoro and Teso, women who are confined in their own homes seldom report the results of pregnancy to the institution where they received treatment, yet these figures are encouraging. It is hoped that, as women become more accustomed to attending clinics both for themselves during their pregnancies and later for their infants, they will gradually learn to inform the clinic of the results of their pregnancies. It is significant that in Bunyoro 47 per cent. and in Teso 30 per cent. of all ante-natal cases reported the results. In these districts the education referred to has evidently proceeded far.

227. The following table gives the number of confinements with their results in certain institutions:—

				Confinements excluding miscarriage.	Still-births.	Living births.	Maternal deaths.
Entebbe	..	..	..	124	9	115	3
Mulago	..	..	..	361	24	287	12
Masaka	..	..	..	370	48	322	15
Bugembe	..	..	..	143	12	131	1
Kamuge*	..	..	..	48	2	46	2
Kibale	..	..	..	140	7	133	1
Serere	..	..	..	103	2	101	1
Butaleja**	..	..	..	57	..	57	1

* Opened on July 24th, 1936.

** Opened on March 15th, 1936.

Of the 36 deaths recorded above eleven were of women who had been under supervision during their pregnancies, and 25 of women who were seen for the first time in labour.

228. The following obstetrics were performed:—

Caesarian section	..	..	..	27
Perforation and cranioclasm	..	..	..	21
Internal version	..	..	..	13
Forceps delivery	..	..	..	107
Removal of retained placenta	..	..	..	29

229. 20,918 infants attended welfare centres. This number excludes children brought up for definite disease and is confined to healthy, or relatively healthy, infants who were brought up by their mothers for supervision.

230. The following table shows the number of infants attending clinics in certain districts:—

	1935		1936	
	Number of infants.	Attendances.	Number of infants.	Attendances.
Entebbe	352	487	306	417
Bugembe	305	2,280	497	2,585
Kampala and Dispensaries ..	287	1,140	880	2,117
Masindi and Dispensaries ..	334	6,492	444	7,091
Soroti and Dispensaries ..	385	1,319	2,711	4,124
Mbarara and Dispensaries ..	3,013	3,379	2,613	3,257
Hoima and Dispensaries ..	1,109	5,169	781	4,551
Fort Portal and Dispensaries ..	1,104	2,545	934	1,636
Lira and Dispensaries ..	..	..	4,837	10,611
Kabale and Dispensaries ..	..	..	4,266	6,855

231. The average number of attendances for each infant was 2·3 compared with 2·9 in 1935. Though this number is very low, there is evidence that in several districts, notably in Bunyoro where each infant was brought up on the average just over eight times and at Bugembe where the average was over five, the value of these clinics is being more and more appreciated by the women.

232. *Report on the Lady Coryndon Maternity Training School by Dr. A. T. Schofield.*—During the year 41 students were in training; 17 of these sat for the Certificate of the Uganda Midwives Board, 15 being successful. 77 midwives, 12 of whom were working for Government in 1936, were in service during the year. Six of these were in training for general nursing.

233. The following patients were admitted to the clinical wards attached to the school:—

Total admissions	589	Threatened miscarriage ..	94
Total confinements including those born before arrival	392	Maternal deaths	24
Living babies born	310	Infant deaths including those babies admitted for illness ..	39
Babies born before admission ..	30	Living babies discharged ..	316
Miscarriages	18		

234. The causes of maternal deaths were:—

Eclampsia	2	Post partum haemorrhage ..	2
Ruptured uterus	2	Ante partum haemorrhage ..	2
Following caesarian section ..	2	Placenta praevia	2
Obstructed labour	5	Septicaemia	7

235. The following operations were performed:—

Caesarian section	8	Instrumental removal of placenta ..	2
Delivery by forceps	53	Dilatation and curetting ..	2
Perforation and cranioclasia ..	9	Induction	2

236. The causes of infant deaths were:—

Septic cord (admitted as such) ..	1	Born in white asphyxia ..	4
Prematurity	23	Pneumonia	3
Syphilitic marasmus	8		

237. In the out-patient department, 3,739 expectant mothers, of whom 1,211 came for the first time during the year were treated. 473 of these were found to be syphilitic. In addition, 869 infants were brought up for post-natal supervision.

238. During 1936, a block of three rooms for women suffering from puerperal sepsis was built so that such cases can now be nursed in a separate building. In addition an open-air room properly screened was erected at the Motherless Babies Home, where the weakly babies can be nursed.

239. Report on the country centres:—

		Confinements, including babies born before admission but excluding miscarriage.	Still births.	Living children.	Miscarriages.	Threatened miscarriage.	Maternal deaths.	Infant deaths.	Ante-natal cases.	Child Welfare.	Total out-patient attendances.
Iganga*	..	54	4	50	..	2	1	1	45	1,507	5,077
Jungo ..	..	78	1	77	1	..	..	4	452	558	2,458
Kabasanda ..	..	54	5	49	2	4	1	3	603	538	4,061
Kabwoko ..	..	150	7	146	5	4	..	1	839	647	3,230
Kako ..	..	60	4	58	3	7	..	3	847	647	4,396
Kapeka ..	..	49	2	48	2	1	1	3	491	304	1,932
Kasaka ..	..	36	..	37	..	2	..	1	678	376	2,632
Kiboga ..	..	79	1	78	1	1	1	4	292	336	1,959
Kikoma ..	..	14	1	13	..	..	1	1	318	341	2,754
Kira ..	..	60	5	56	1	1	..	3	194	181	1,543
Lutete ..	..	68	4	65	2	4	..	3	652	361	2,509
Luwero ..	..	32	2	30	2	..	1	2	533	408	2,467
Mityana ..	..	44	3	44	7	..	..	..	761	664	3,691
Nakifuma ..	..	138	11	130	10	1	1	4	723	832	3,855
Namulonge ..	..	44	2	43	4	2	..	3	398	252	1,158
Ndeje ..	..	46	6	41	7	4	1	2	499	283	2,192
Ngogwe ..	..	56	2	55	4	6	..	3	721	493	4,560
Mukono ..	..	152	8	149	9	13	1	10	802	1,440	7,345
Bushenyi*	..	47	3	45	1	1	..	1	215	412	1,806
Ibanda*	..	43	2	42	1	..	..	..	124	513	2,184
Kabwohe*	..	48	2	46	..	..	..	..	326	689	2,327
Mbarara ..	..	79	3	78	1	..	..	4	331	920	3,580
TOTAL ..	..	1,431	78	1,380	63	53	9	56	10,844	12,702	67,716

* Returns incomplete.

240. Owing to a lack of funds, no new centres were opened during the year, though in certain areas there is a demand for them. Many of the homes improved their figures, though others have not done so well. The success or failure of a centre rests largely on the character of the midwife, and on the local chief who by taking an interest in the work can do a great deal to help by his example.

241. *Report on Nsambya Maternity Training School.*—During the year there were in training 30 students, five of whom sat for and passed the examination for the Certificate of the Midwives Board.

242. The following patients were admitted to the wards attached to the school:—

Total admissions	314	Maternal deaths	8
Total confinements excluding miscarriage	237	Infant deaths	8
Miscarriages	23	Number of new women for ante-natal treatment	594
Still-births	36	Number of attendances ..	3,353
Living children born	201	Number of infants attending welfare centre	201
Threatened miscarriage	7	Number of attendances ..	476
Other conditions	47		

243. The following operations were performed:—

Caesarian section	9	Perforation and cranioclasm ..	5
Instrumental deliveries	12	Internal version	6

244. The causes of maternal death were:—

Obstructed labour	3	Ruptured uterus	1
Shock and morbus cordis	1	Post partum haemorrhage ..	1
Puerperal sepsis	2		

245. The causes of infantile death were:—

Prematurity	2	Asphyxia	3
Congenital syphilis	3		

246. Country centres:—

	Confinements, excluding miscarriage.	Still births.	Living children born.	Miscarriages.	Threatened miscarriage.	Other conditions.	Maternal deaths.	Infant deaths.	New ante-natal cases.	Infant welfare.	Total out-patient attendances.
Kisubi	70	1	69	7	2	12	1	..	145	..	417
Katende	81	4	77	4	3	..	..	..	186	16	..
Bikira	136	5	131	4	..	..	1	4	790	..	..
Mitala Maria	273	23	250	11	..	..	1	..	963	35	..
Nkokonjeru	132	1	31	14	20	16	4	..	119	102	13,815
Budaka	17	4	13	..	..	..	..	..	..	..	..
Nagongera	108	3	105	2	4	..	4	2	92	15	8,595
Nyondo*	..	..	..	..	..	..	..	..	..	..	..
Kamuli	118	4	114	2	3	..	2	..	169	70	500
Nagalama	58	10	48	3	1	..	2	5	273	38	999
Lwala	35	8	27	4	6	5	1	2	321	708	1,792
Namilyango	39	2	37	2	2	..	..	..	392	38	767
Gayaza	105	4	101	10	..	..	1	..	257	101	820
Rubaga	71	1	70	8	3	..	..	..	192	410	..
Ngora	101	1	100	5	10	..	1	..	289	64	7,570
Villa Maria	263	6	257	9	3	2	1	1	550	..	627
Nyenga	86	..	86	5	14	16	2	5	100	54	278
TOTAL ..	1,693	77	1,616	90	71	51	21	19	4,838	1,651	36,180

* No return.

247. A new, up-to-date maternity hospital accommodating 22 patients was built at Nsambya during the year. The standard of general education of the girls who come for training is higher than formerly, though there is room for further improvement.

248. There was a steady increase in attendances at the majority of the country centres, and this was particularly the case at Mitala Maria, Nagongera and Ngora. Improvements were made to the buildings at Ngora and Nagongera, while the centre at Lwala is being rebuilt and should be finished in a few months' time.

SECTION VI.—HOSPITALS AND DISPENSARIES.

249. The following sums were spent by the Public Works Department on Medical buildings during the year:—

New works at:—

	£	shs.	cts.
MULAGO—			
Mental hospital—European and Asian section, completion of	196	0	00
KAMPALA—			
Quarters for four Asiatic Nurses	2,500	0	00
HOIMA—			
Quarters for five African Orderlies	314	0	00
KABALE—			
Quarters for Senior African Medical Assistant, completion of	29	0	00
MASAKA—			
Quarters for Head Nurse and Orderly	417	0	00
Quarters for six African Orderlies	378	0	00
Asiatic hospital	393	0	00
SOROTI—			
Medical Store	496	0	00
Quarters for six Male Orderlies and three Female Nurses	539	0	00
TORORO—			
Hospital unit	6,215	0	00
MISCELLANEOUS WORKS—			
Miscellaneous minor works and improvements to buildings	1,126	0	00
Maintenance of buildings	1,277	4	38
	£13,880	4	38

TABLE G.—MEDICAL UNITS, BEDS AND PATIENTS BY DISTRICTS.

TABLE G. MEDICAL UNITS, BEDS AND PATIENTS.																										
				BUGANDA PROVINCE.					WESTERN PROVINCE.				EASTERN PROVINCE.						NORTHERN PROVINCE.							UGANDA PROTEC- TORATE.
				Entebbe District.	Mengo District.	Masaka District.	Mubende District.	TOTAL.	Toro District.	Ankole District.	Kigezi District.	TOTAL.	Busoga District.	Budama District.	Bugishu District.	Bugwere District.	Teso District.	Karamoja District.	TOTAL.	Lango District.	Bunyoro District.	Gulu District.	Chua District.	Madi Sub-District.	West Nile District.	
Medical Units.				1	1	..	..	2	...	...	...	...	1	..	...	2	...	...	...	...	...	...	...	...	4	
European Hospitals				1	1	1	..	3	...	...	...	...	1	..	...	3	...	1	2	...	...	...	...	...	9	
Asiatic Hospitals				1	2	1	1	5	...	...	...	...	1	1	...	7	...	1	3	1	1	1	1	23		
African Hospitals				1	8	6	6	21	9	4	4	17	6	3	3	4	4	4	9	4	4	5	9	93		
Dispensaries				1	8	6	6	21	9	4	4	17	6	3	3	4	4	4	9	4	4	5	9	93		
In-Patients.																										
BEDS AVAILABLE:				7	20	...	...	27	...	...	...	...	4	...	...	3	7	...	...	...	...	...	...	...	34	
European				4	29	3	...	36	...	...	...	...	6	...	...	2	12	4	4	...	...	...	...	...	56	
Asiatic				48	311	128	27	514	40	49	54	143	114	40	20	79	56	6	54	81	40	33	53	40	1,273	
African in Hospitals				20	...	43	...	63	8	56	73	137	78	34	40	85	32	40	...	...	...	...	20	529		
African in Dispensaries				20	...	43	...	63	8	56	73	137	78	34	40	85	32	40	...	...	...	...	20	529		
TOTAL				79	360	174	27	640	48	105	127	280	202	74	60	169	92	6	98	85	40	33	53	60	1,892	
CASES ADMITTED:				24	462	...	...	486	...	...	...	...	24	...	...	7	31	...	...	...	...	...	...	...	517	
European				21	1,083	36	...	1,140	6	...	...	6	...	...	6	42	182	...	...	...	...	...	...	...	1,345	
Asiatic				876	8,275	3,497	483	13,131	890	1,319	752	2,961	3,462	775	296	1,440	1,055	119	1,780	1,429	782	443	373	1,169	29,215	
African				876	8,275	3,497	483	13,131	890	1,319	752	2,961	3,462	775	296	1,440	1,055	119	1,780	1,429	782	443	373	1,169	29,215	
TOTAL				921	9,820	3,533	483	14,757	896	1,319	752	2,967	3,620	775	296	1,453	1,097	119	1,780	1,442	786	443	373	1,169	31,077	
TOTAL NUMBER OF IN-PATIENT DAYS ...				11,824	124,359	43,670	8,707	188,560	9,536	14,077	22,890	46,503	43,855	13,157	3,349	14,190	15,033	1,405	26,316	23,990	13,054	7,619	11,890	22,680	431,601	
AVERAGE DAILY NUMBER IN WARDS ...				32'3	339'8	119'3	23'8	515'2	26'1	38'5	62'5	127'1	119'8	35'9	9'1	38'8	41'0	3'8	71'9	65'5	35'7	20'8	32'5	61'9	1179'2	
Out-Patients.																										
Attendances				50,834	368,735	179,802	106,936	706,307	213,175	156,503	138,691	508,369	251,285	117,026	92,738	130,982	236,118	7,429	185,700	309,933	119,253	90,115	62,230	277,344	3,094,829	
Total New Cases.																										
European				347	1,374	39	25	1,785	66	101	46	213	475	125	...	97	760	49	98	42	28	7	94	318	3,076	
Asiatic				627	1,950	563	36	3,176	50	68	128	246	1,578	962	15	30	3,195	52	600	95	126	20	56	949	7,566	
African				12,426	51,704	20,605	5,606	90,341	16,894	15,511	8,705	41,110	37,221	10,974	11,674	22,402	23,041	56,499	21,614	13,106	9,677	7,522	19,686	368,151		
TOTAL				13,400	55,028	21,207	5,667	95,302	17,010	15,680	8,879	41,569	39,274	12,061	11,689	22,529	23,697	3,301	56,600	22,312	13,243	9,831	7,549	19,836	378,793	
DISPENSARIES TOTAL				6,340	57,995	26,674	21,559	112,568	64,374	22,120	22,116	108,610	72,106	23,087	27,976	33,706	65,955	...	5,383	17,837	34,104	17,408	17,739	58,362	594,841	
MEDICAL EXAMINATION TOTAL				1,566	3,577	7,552	1,686	14,381	1,195	39,542	245	40,982	1,515	324	828	794	1,134	359	1,740	10,946	1,433	723	3,936	33,841	112,936	
GRAND TOTAL				21,306	116,600	55,433	28,912	222,251	82,579	77,342	31,240	191,161	112,895	35,472	40,493	57,029	90,786	3,660	63,723	51,095	48,780	27,962	29,224	112,039	1,086,570	
Surgical Operations.																										
General Anaesthesia				90	1,126	223	34	1,473	39	133	130	302	578	30	36	300	133	3	...	185	58	14	17	...	3,129	
Spinal Anaesthesia				...	4	50	...	54	...	...	...	...	...	...	...	...	...	...	...	6	3	...	...	...	68	
Other Anaesthesia				44	595	401	12	1,052	10	12	26	48	602	61	40	11	43	13	...	211	129	7	19	...	2,236	
TOTAL				134	1,725	674	46	2,579	49	145	161	355	1,180	91	76	311	176	16	...	402	190	21	36	...	5,433	

A LIST OF SUB-DISPENSARIES OPEN OR UNDER CONSTRUCTION IN 1936.

Name.	District.	New Cases 1936.	Re- Attendanees 1936.	Year Opened.	Remarks.
Mukono ..	Mengo ..	5,887	18,408	1923	Permanent buildings.
Kasangati ..	" ..	6,857	18,555	1923	" ..
Bowa ..	" ..	11,480	25,225	1923	" ..
Kalagala ..	" ..	6,182	19,951	1930	" ..
Kome ..	" ..	620	2,072	1923	Island Dispensary. Temporary buildings.
Buvuma ..	" ..	1,111	4,445	1923	Island Dispensary. Temporary buildings.
Nakasongola ..	" ..	4,355	15,609	1931	Temporary buildings.
Wakiso ..	" ..	8,040	14,856	1923	Permanent buildings.
Mpigi ..	" ..	6,340	13,673	1923	" .. with ward.
Mubende Hill	Mubende	2,562	6,109	1926	Temporary buildings.
Mityana ..	" ..	6,687	13,610	1923	Permanent buildings
Kibale ..	" ..	4,693	17,659	1926	Temporary buildings.
Kakumiro ..	" ..	3,367	9,870	1928	" ..
Madudu ..	" ..	2,052	9,608	1928	" ..
Kyanasoke ..	" ..	2,198	9,746	1931	" ..
Kalisizo ..	Masaka ..	4,480	25,857	1923	" ..
Kalungu ..	" ..	5,719	17,467	1927	" ..
Kiebbe ..	" ..	3,279	6,027	1936	" ..
Kalangala ..	" ..	1,977	6,852	1923	Island Dispensary. Temporary buildings.
Rakai ..	" ..	4,684	10,062	1927	Temporary buildings.
Lyantonde ..	" ..	6,535	17,398	1927	Permanent buildings.
Kaliro ..	Busoga ..	11,008	9,589	1927	Pemanent buildings with ward.
Namwendwa	" ..	16,788	22,734	1925	" .. " ..
Namungalwe	" ..	11,211	16,531	1925	" .. " ..
Bugiri ..	" ..	9,977	12,039	1932	Temporary buildings.
Nsinze ..	" ..	14,898	8,950	1932	" ..
Buyende ..	" ..	8,214	5,641	1936	" ..
Nagongera ..	Budama	7,568	19,535	1927	Permanent buildings with ward.
Butaleja ..	" ..	7,085	19,852	1927	" .. " ..
Masafu ..	" ..	8,434	14,436	1926	" .. " ..
Budadiri ..	Bugishu	11,291	13,604	1922	Temporary buildings.
Butiru ..	" ..	7,370	7,758	1931	" ..
Bulucheke ..	" ..	9,315	13,567	1931	" ..
Budaka ..	Bugwere	12,296	8,590	1930	Permanent buildings with ward.
Kamuge*	" ..	10,389	16,185	1922	" .. " ..
Bukedia ..	" ..	10,035	13,435	1926	" .. " ..
Nakaloke ..	" ..	11,375	14,628	1936	Pisé de terre building.
Katakwe ..	Teso ..	10,251	16,538	1926	Temporary buildings.
Serere ..	" ..	24,625	50,046	1924	Permanent buildings.
Amuria ..	" ..	20,973	25,304	1924	" ..
Kamod ..	" ..	10,106	17,010	1931	Temporary buildings.
Kakabara ..	Toro ..	4,946	2,811	1922	" ..
Kasule ..	" ..	6,149	11,557	1930	" ..
Butiti ..	" ..	9,668	12,156	1925	" ..
Bundibugyo ..	" ..	10,712	15,563	1926	" ..
Kisomoro ..	" ..	8,665	12,631	1926	Permanent buildings.
Bugoye ..	" ..	4,806	6,946	1932	Temporary buildings.
Mpondo ..	" ..	7,066	11,626	1932	" ..
Kanyampara	" ..	8,037	25,367	1933	" ..
Rwaitengya ..	" ..	4,325	4,316	1932	" ..
Bushenyi ..	Ankole ..	7,416	10,479	1922	Permanent buildings.
Lwasamaire ..	" ..	6,840	10,307	1922	" ..
Kinoni ..	" ..	4,311	8,128	1931	" ..
Ruhoko ..	" ..	3,553	17,971	1922	Temporary buildings.
Rukungiri ..	Kigezi ..	6,797	17,662	1922	Permanent buildings.
Kisolo ..	" ..	3,706	19,664	1922	" ..
Mpalo ..	" ..	3,612	18,924	1922	" ..
Kinkizi ..	" ..	3,897	9,036	1922	Temporary buildings.
Aduku*	Lango ..	10,317	25,994	1922	Permanent buildings with ward.
Kaberamaido*	" ..	12,397	25,618	1931	" .. " ..

* The figures from these dispensaries are included in Tables V and VI.

A List of Sub-Dispensaries Open or Under Construction in 1936—*contd.*

Name.	District.	New Cases 1936.	Re- Attendances 1936.	Year Opened.	Remarks.
Aboki* ..	Lango ..	15,922	32,958	1931	Temporary buildings.
Omoro ..	" ..	5,383	5,354	1935	" "
Dwoli ..	Bunyoro	2,111	22,081	1925	" "
Kiziranfumbi ..	" ..	2,421	2,050	1925	" "
Kisaru ..	" ..	1,508	13,813	1931	" "
Masindi Port..	" ..	1,036	6,250	1925	Permanent buildings.
Kiriandongo ..	" ..	3,464	29,647	1926	" "
Kinyala ..	" ..	1,402	10,444	1925	Temporary buildings.
Bujenje ..	" ..	3,459	38,522	1932	" "
Kijunjubwa ..	" ..	459	2,476	1933	" "
Bulisa ..	" ..	1, 77	14,669	1935	" "
Gere-Gere ..	Chua ..	11,199	11,351	1935	" "
Paranga ..	" ..	1,861	2,808	1934	" "
Palabek ..	" ..	2,229	5,139	1936	" "
Lokung ..	" ..	2,119	10,875	1936	" "
Minakulu ..	Gulu ..	7,761	15,551	1930	Permanent buildings.
Attiak ..	" ..	7,198	14,959	1931	" "
Awach ..	" ..	8,910	11,548	1932	" "
Abbia Ferry ..	" ..	10,235	2,351	1934	Temporary buildings.
Ajumani ..	Madi ..	6,991	6,747	1927	Permanent buildings.
Zaipi ..	" ..	2,370	1,393	1931	Temporary buildings.
Ubongi ..	" ..	3,316	2,909	1933	" "
Laropi ..	" ..	3,032	4,180	1931	" "
Lufori ..	" ..	2,030	1,640	1935	" "
Terego ..	West Nile	5,972	32,471	1925	Permanent buildings.
Pakwach ..	" ..	19,746	21,407	1930	Temporary buildings.
Pai-Ida ..	" ..	3,272	13,932	1930	Permanent buildings.
Okollo ..	" ..	5,504	22,669	1934	Temporary buildings.
Warr ..	" ..	5,500	17,569	1934	" "
Aringa ..	" ..	6,127	15,853	1928	" "
Udupe ..	" ..	3,514	5,285	1932	" "
Ladongo ..	" ..	5,176	7,633	1932	" "
Mocha ..	" ..	3,551	1,864	1936	" "

* The figures from these dispensaries are included in Tables V and VI.

DISTRICT MATERNITY CENTRES.

Name.	District.	Number of Confinements.	Number of other Admissions.	Number of Women for Ante-Natal Supervision.	Number of Infants for Post-Natal Welfare.
Bugembe ..	Busoga ..	145	3	627	497
Kamuge ..	Bugwere ..	49	..	997	31
Butaleja ..	Budama ..	61	8	198	..
Serere ..	Teso ..	116	1	1,551	1,066
Kibale ..	Mubende ..	141	1	529	..
Butiti ..	Toro ..	5	..	724	72
Kisolo ..	Kigezi ..	4	..	370	3,734

TABLE H.

In the following table are set out the amounts of some preparations manufactured, wholly or partly, in the Pharmaceutical Section of the Medical Store during the past six years:—

	1931	1932	1933	1934	1935	1936
Tincture <i>pts.</i>	4,954	4,324	3,137	2,217	2,305	1,789
Liniments „	3,873	3,202	2,273	2,852	3,798	2,486
Ointments <i>lbs.</i>	11,024	14,061	11,376	17,848½	16,308	16,880
Dusting powder „	800	813	320	700	400	501
Infusions, conc. <i>pts.</i>	1,064	864	464	482	650	1,485
Hard soap <i>lbs.</i>	..	9,156	..	..	2,284	3,600
Soft soap „	9,280	..	9,855	11,027	14,451	6,899
Sundries „	5,905	1,773	1,277	506½	2,540	1,994
Bismuth sod. pot. tart. .. „	17½	45	33½	42½	7½	..
Cataplasma kaolin „	..	..	640	1,003	1,045	1,875
Insecticide <i>pts.</i>	..	..	292	746	1,709	1,454
Oxymels and syrups <i>lbs.</i>	..	..	1,323	1,175	1,554	1,932
Glycerine preparations „	..	..	226	522	457	482
Liquors <i>pts.</i>	..	..	786	2,032	2,828	2,526
Spirits „	..	..	468	653	966	298
Metal polish <i>bots.</i>	..	..	..	..	686	1,585
			cc.	cc.	cc.	cc.
INJECTIONS AND SUSPENSIONS—						
Bismuth oxid. 30cc. <i>bots.</i>	..	..	..	166,460	410,170	432,540
Bismuthsalicyl. in oil	..	..	..	..	..	960
Emetine hydrochlor. 10cc. <i>bots.</i>	..	..	1,800	5,720	10,600	11,710
Quinine bihydrochlor. 10cc. „	..	..	3,500	11,360	15,000	22,240
Camphor in oil „	..	..	..	490	1,720	2,540
Thiosinamin	..	..	..	330	..	..

REPORT ON THE UGANDA MEDICAL SCHOOL, MULAGO, FOR THE YEAR 1936.

250. During the year the Joint East African Examining Board in Medicine was constituted and on August 20th held its first meeting at which the curriculum was drawn up, syllabi for each subject were completely revised and approved, regulations for the examinations laid down and external examiners for the medical examinations in December, 1936, appointed. It was decided to recommend that the period of clinical instruction at Mulago Hospital should be increased from two to three years, to allow of the inclusion of a course in preventive medicine and to allow for additional practical training in all subjects.

251. During the year, the following students sat for the examinations:—

At the second examination, in anatomy and physiology, four candidates were presented and all passed. A candidate from Kenya Colony obtained distinction in both subjects.

For the third examination, Part I, in pathology and materia medica, four candidates sat, all passed in pathology and one was referred for six months in materia medica.

At the examination, Part II, medicine, surgery, obstetrics and gynaecology, five candidates were presented. Three passed in all subjects, one was referred for six months in surgery, and one in all subjects for twelve months.

E. Mukibi Mwanjale obtained distinction in each subject and was awarded the three foundation medals.

252. The following comments by the examiners were made:—

Dr. N. Chilton, B.A. (Oxon) B.M., B.Ch. (Oxford), who examined in physiology and materia medica reported that in pharmacy, candidates displayed a lack of interest in the practical side and that the knowledge they showed was a feat of memory without intelligent comprehension of the subject. He recommended that less time should be devoted to the theory of pharmacy and more to actual dispensing. In physiology, the written answers were good, but he thought that there was a tendency towards too much theoretical teaching.

Mr. C. V. Braimbridge, M.V.O., B.A. (Cantab), F.R.C.S. (E), M.B. (Cambridge) D.T.M.&H., considered that the standard of anatomy was very high, and that many of the answers were up to Fellowship standard. He considered that Dr. P. J. Cowin, the tutor in anatomy, deserved high commendation. In surgery, he found book learning in advance of practical knowledge and thought that students needed more experience in practical work.

Dr. F. W. Vint, M.D., B.Sc. (Q.U. Belf.), examiner in pathology, expressed his satisfaction with the standard obtained, but observed that the technique in preparing and examining microscopical preparations was poor, and recommended that more time should be devoted to routine laboratory work.

Dr. P. S. Bell, M.R.C.P. (Lond.) F.R.C.S. (E), who examined in medicine and midwifery, was satisfied with the standard in the former subject which he thought was high. In midwifery he was glad to find that the candidates with one exception were better in the clinical than in the theoretical examination.

253. At the end of 1936, 34 students had qualified, of whom 29 are in the service of the Protectorate, two are in the service of the Zanzibar Government, two have died of plague contracted in the course of their duties, and one has had his appointment terminated.

Training of Nursing Orderlies.

254. Suitable text books for the training of nursing orderlies were written by Dr. J. P. Mitchell, Medical Superintendent, and Miss R. A. Bagot, Lady Superintendent of Nurses, and will be available early in 1937. In the senior class 20 male orderlies (18 of whom passed) sat for the examination; in the junior class 11 out of 13 passed; one female nurse sat for and passed the senior class examination and eight, all of whom passed, the junior class examination.

255. As there is a considerable demand for orderlies capable of taking charge of dispensaries or of the out-patient clinics of hospitals, a scheme is under consideration to turn out two distinct types of men—nursing orderlies, whose duty will be the nursing of the sick, and orderlies who will be trained in the diagnosis and treatment of out-patients.

Training of Dispensers.

256. Seven men are in training for this course. Three were successful in the first examination in March, 1936, while one who has had previous experience as an unqualified dispenser and for whom the course has been somewhat shortened, will sit for the final examination in March, 1937.

SECTION VII.—REPORT ON PRISONS AND ASYLUMS FOR 1936.

257. The details for each Protectorate Prison for 1936 were as follows:—

	Accommodation available.	Daily average in Prison.	Daily average on sick list.	Number of deaths.	Morbidity rate per thousand.	Death rate per thousand.
Central Prison ..	904	801	12·9	25	16·1	31·2
Entebbe ..	143	52	6	..	115·3	..
Masaka ..	65	42	5	2	..	..
Mubende ..	26	9	1	..	..	..
Jinja ..	78	42	2	1	..	..
Mbale ..	100	75	6	1	80·0	14·3
Tororo ..	16	9	0·16	1	..	..
Soroti ..	140	45	2	3	..	..
Moroto ..	41	26	0·03	2	..	..
Masindi ..	34	38	3	2	..	..
Lira ..	120	80	12	1	150·0	12·5
Arua ..	55	79	8	3	105·2	52·6
Gulu ..	78	49	6	..	..	..
Kitgum ..	153	32	5	..	..	..
Fort Portal ..	15	12	2	..	..	..
Mbarara ..	37	23	0·7	3	..	..
Kabale ..	55	39	3	..	..	..
TOTAL ..	2,060	1,453	75	44	52·3	30·2

In addition, a daily average of 15 prisoners was confined in the Native Administration prison at Moyo.

The morbidity and death rates for the smaller gaols are not given as the apparently high rates would give an erroneous impression of the health of the inmates. In spite of the consistent overcrowding at Arua and Masindi, there was little serious illness in either gaol. The two deaths in Masindi were both of remand prisoners who were suffering from mental disease. As in previous years, the commonest complaints were malaria, ulcers, minor injuries and diseases of the respiratory tract. There were 54 cases of chicken-pox in Lira gaol.

258. There were 44 deaths among convicts in 1936. The causes were:—

Meningitis ..	9	Hemiplegia ..	1
Syphilis ..	4	Small pox ..	1
Pneumonia ..	3	Heart failure ..	1
Chronic nephritis ..	3	Amoebic dysentery ..	1
Debility ..	3	Relapsing fever ..	1
Blackwater fever ..	2	Meningitis following gun-shot wound ..	1
Suicide ..	2	Beri-beri ..	1
Fracture of skull ..	1	Exhaustion ..	1
Enteric fever ..	1	Pyaemia ..	1
Pulmonary abscess ..	1	Insanity ..	1
Pericarditis ..	1	Gun-shot wound ..	1
Tuberculosis ..	1	Killed by fellow prisoner ..	1
Myocarditis ..	1		

259. The death rate per thousand for the past few years has been:—

		Deaths.	Rate.			Deaths.	Rate.
1928	..	157	70·5	1933	..	34	18·6
1929	..	87	40·9	1934	..	32	17·2
1930	..	56	26·5	1935	..	26	15·0
1931	..	37	17·7	1936	..	44	30·2
1932	..	29	15·7				

260. The authorised ration scale at the central prison for long term prisoners and at the other gaols for short term prisoners was unaltered during the year. Similar diets were the rule at other Protectorate prisons, except for minor alterations in certain places where the staple diet of the inhabitants differed and local foodstuffs were substituted for certain items.

261. Improvements and recommendations for each prison were as follows:—

Buganda Province.

Central Prison, Luzira.—Eleven wattle and daub association cells were found to be unsafe, were demolished and rebuilt, unfortunately without any windows or ventilators, so that the cells do not conform with building regulations. Ventilation is probably sufficient owing to the interstices in the pole and papyrus walls. Improvement in the ventilation of the Asiatic section was recommended.

Mubende and Masaka.—No change from last year.

Eastern Province.

Jinja.—No change from last year.

Mbale.—The latrine accommodation was improved and is now satisfactory.

Tororo.—A kitchen was built.

Soroti.—A permanent gaol is required.

Northern Province.

Masindi and Lira.—New permanent gaols are required, particularly at the former place where the present prison is consistently overcrowded.

Arua.—New permanent latrines were built.

Kitgum.—No change.

Gulu.—The ventilation and lighting of the association cells require improvement.

Western Province.

Fort Portal, Kabale and Mbarara.—At each station a permanent gaol is required.

Native Administration Gaols.

262. The general standard of the Native Administration gaols has improved greatly in recent years and in many districts these are now built in permanent materials. There is, however, nearly always a good deal of overcrowding and most medical officers report a deficiency of

diet. In spite of this, the health of prisoners was, on the whole, good. In Teso, a scheme was evolved for the introduction of prison model farms attached to each Native Administration prison. In addition to the education of the prisoners in modern methods of agriculture and animal husbandry, this will ensure that an adequate diet is available for the feeding of the inmates of the prisons. It is hoped that this scheme will be extended to other districts. In Busoga the sick at each saza gaol were either visited daily by a nursing orderly from a near-by dispensary or treated by a warder specially trained to deal with minor ailments. In every district, the gaols were visited regularly by medical officers and in addition the senior African medical assistants at Kabera-maido and Aduku inspected the local prison at least once weekly. After the necessary alterations to bring the building up to structural and sanitary requirements, the old mental hospital building at Hoima was opened as the Central Native Administration gaol for Bunyoro, and proved satisfactory for the purpose.

Protectorate Mental Hospital.

263. During 1936, most of the criminal lunatics who had hitherto been confined in the central prison at Luzira were transferred to the new Mental Hospital at Mulago, and as a consequence the number of admissions rose considerably above that for previous years. Fifteen males and seven females were admitted for observation as to their state of mind. Of these, five males and three females were certified and adjudicated lunatics by a magistrate. The European and Asiatic section was completed during the year.

264. There were 27 deaths in 1936:—

	Males.	Females.
Asthenia	8	3
Smallpox	..	1
Collapse following confusional insanity ..	1	..
Bacillary dysentery	4	..
Exhaustion	1	..
Pneumonia	2	1
Typhoid fever	1	..
Syphilitic meningo-encephalitis ..	1	..
Status epilepticus	1	..
Pulmonary tuberculosis	..	1
Chronic nephritis	..	1
Dementia	1	..

SECTION VIII. METEOROLOGY.

265. All available information is printed in the Blue Book.
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SECTION IX. SCIENTIFIC.

266. Scientific papers published during the year:—

Dr. R. S. F. Hennessey.

“Haematological Observations on Natives of Uganda”.
East African Medical Journal, Vol. XIII, p. 210.

Mr. E. G. Gibbins.

“Congo Simuliidae”. Annals of Tropical Medicine and
Parasitology, Vol. XXX, p. 133.

Mr. E. G. Gibbins.

“Uganda Simuliidae”. Transactions of the Royal Ento-
mological Society, Vol. LXXXV, p. 217.

Mr. E. G. Gibbins.

“On a Melanic, Inland Race of *Anopheles costalis*, Giles
(*Gambiae*) in Uganda”. Annals of Tropical Medicine and
Parasitology, Vol. XXX, p. 275.

Mr. R. C. D. Hooper and Dr. L. J. A. Loewenthal.

“A Survey of Health Work in Teso, Uganda”. Annals of
Tropical Medicine and Parasitology, Vol. XXX, p. 17.

Dr. W. A. Wilson.

“The controlled experiment in Medicine”. East African
Medical Journal, Vol. XIII, 1936, p. 164.

ANNUAL REPORT OF THE LABORATORY SERVICES FOR THE YEAR 1936.

Part I.

267. During the year, Mrs. M. Turton who had been in charge of the Laboratory since 1931 retired. She will be much missed.

268. Mr. E. G. Gibbins, Laboratory Assistant, was seconded to the Yellow Fever Institute, Entebbe, on November 30th. He was in charge of the Laboratory Stall at the Lira Welfare Exhibition and was chiefly responsible for the work entailed in making the stall a success.

269. In February an entomological survey of proposed sites for the new King's African Rifles lines in Jinja was carried out by Mr. Gibbins and in March a bacteriological examination of the water of Malaba river, in connection with a water supply for Tororo. An anopheline survey of Tororo was done at the same time.

270. During the year, five orderlies passed the examination for promotion to Grade V and one that for promotion to Grade IV. 13 out-stations are now staffed by trained laboratory orderlies.

Part II.

271. The number of examinations made in the laboratory at Kampala during the year was 46,114.

A. BLOOD EXAMINATIONS AND CELL COUNTS.

	Europeans.	Asians.	Africans.	Total.
For parasites	768	53	11,697	12,518
Red cell counts	21	4	154	179
White cell counts	11	5	103	119
Differential counts	36	8	94	138
Haemoglobin estimation	14	3	174	191
Reticulocyte counts	..	..	34	34
Platelet counts	..	..	1	1
Grouping	1	..	9	10
Fragility test	..	..	2	2
Van de Bergh reaction	..	..	9	9
Blood urea estimation	..	..	46	46
Blood sugar estimation	2	1	2	5
Cultures	4	1	27	32
Agglutination tests	19	27	330	376
	..	..	..	13,660

FINDINGS IN 12,518 POSITIVE BLOOD FILMS.

	Europeans.	Asians.	Africans.
<i>P. malariae</i>	9	3	573
<i>P. falciparum</i>	62	10	2,869
<i>P. vivax</i>	4	..	61
<i>P. falciparum</i> + <i>P. malariae</i>	2	..	58
<i>P. falciparum</i> + <i>P. vivax</i>	..	..	4
Malaria parasites, species not identified	5	..	435
<i>T. recurrentis</i>	1	..	37
<i>Mf. perstans</i>	..	..	462
<i>P. pestis</i>	..	..	4

B. EXAMINATION OF CEREBRO-SPINAL FLUID.

				Europeans.	Asians.	Africans.	Total.
Number examined	..	..	..	..	..	121	121
Cell counts	..	..	..	..	..	67	..
Ross-Jones test	..	..	..	..	..	20	..
Kahn test	..	..	..	..	..	31	..
Meningococci	..	..	..	..	..	43	..
Pneumococci	..	..	..	..	..	11	..
<i>My. tuberculosis</i>	..	..	..	..	..	1	..

C. FAECES EXAMINATIONS.

				Europeans.	Asians.	Africans.	Total.
Number examined	..	..	..	495	122	4,317	4,934

				Europeans.	Asians.	Africans.	Total.
HELMINTHS—							
Ancylostoma ova	..	..	..	..	11	2,316	
Trichuris ova	..	..	..	4	5	570	
Ascaris ova	..	..	..	1	2	318	
Taenia ova	..	..	..	4	..	223	
Oxyuris ova	..	..	..	1	..	6	
<i>S. mansoni</i> ova	..	..	..	1	..	17	
PROTOZOA—							
<i>E. histolytica</i>	..	..	..	6	..	18	
<i>E. coli</i>	..	..	..	18	11	174	
<i>E. nana</i>	..	..	..	..	1	..	
<i>I. butschlii</i>	..	..	..	..	..	1	
<i>Trichomonas</i> sp.	..	..	..	1	1	10	
<i>Chilomastix mesnili</i>	..	..	..	1	..	7	
<i>Giardia intestinalis</i>	..	..	..	11	1	3	
Intestinal flagellates	..	..	..	5	..	6	
Strongyle larvae	..	..	..	..	..	2	
Charcot—Leyden crystals	..	..	..	7	..	11	
Blood	..	..	..	31	3	32	
Cultures	..	..	..	5	3	54	

D. KAHN TEST.

				Europeans.	Asians.	Africans.	Total.
Number examined	..	..	..	51	113	18,519	18,683

The last 2,600 consecutive examinations of natives of Uganda showed:—

Negative	(—)	923	35·5%
Doubtful	(±)	234	9·0%
Positive	{	+ 268 10·3%	55·5%
		+ ± 460 17·7%	
		+ + 715 27·5%	

E. COMPLEMENT FIXATION TESTS.

				Europeans.	Asians.	Africans.	Total.
Wassermann reaction	..	..	..	13	17	920	950
Gonococcal	..	..	..	2	1	0	3

F. DARK GROUND EXAMINATIONS.

				Europeans.	Asians.	Africans.	Total.
				2	0	14	16

G. VACCINES.

Europeans.	Asians,	Africans.	Total.
14	3	0	17

H. GASTRIC ANALYSIS.

Europeans.	Asians.	Africans.	Total.
4	1	10	15

I. MISCELLANEOUS.

43 batches of drugs were examined for sterility.

J. HISTOPATHOLOGY.

Sections were examined from 336 surgical and post-mortem cases. Of these 80 were of tumours, 30 being classified as carcinomata and 6 as sarcomata. There were also 2 primary liver carcinomata. The penis as usual accounts for nearly 50 per cent. of the cases of squamous cell carcinoma.

K. URINE EXAMINATIONS.

	Europeans.	Asians.	Africans.	Total.
General and Microscopical	635	105	3,921	4,661
Quantitative for Albumin	15	18	15	48
Quantitative for Sugar	6	14	..	20
For Bile pigments	..	1	32	33
For Acetone	71	9	9	89
For Haemoglobin	1	1	8	10
For Ova	4	..	11	15
For Leptospira	..	..	2	2
For <i>My. tuberculosis</i>	7	1	27	35
For <i>N. gonorrhoeae</i>	3	..	30	33
Cultures	9	..	2	11
Urea concentration test	..	..	4	4
Zondek-Ascheim (Friedman)	3	..	..	3
	..	..	..	4,964

S. haematobium was reported on 5 occasions.

L. SPUTUM EXAMINATIONS.

	Europeans.	Asians.	Africans.	Total.
Number examined	30	26	1,735	1,791
<i>My. tuberculosis</i>	..	..	120	..
<i>P. pestis</i>	..	..	10	..

The large increase over last year is due to the necessity of excluding *P. pestis*.

M. EXAMINATION OF SWABS, SMEARS, ETC.

	Europeans.	Asians.	Africans.	Total.
Number examined	179	19	719	917
<i>P. pestis</i>	..	..	2	..
<i>N. gonorrhoeae</i>	14	3	287	..
<i>C. diphtheriae</i>	1	..	3	..
Vincent's organisms	8	..	20	..
Koch-Weeks bacillus	..	..	6	..
Cultures	12	..	18	..

N. POST-MORTEM EXAMINATIONS.

265 post-mortem examinations were performed in 1936. The cause of death could not be ascertained in eight cases, although it is probable that simple inanition was responsible for the death of four unknown migrant natives placed in this group; these four bodies were found by the road-side, and apart from general wasting showed no naked-eye or microscopical signs of serious disease.

The following table gives the primary findings in 248 examinations:—

INFECTIONS.

<i>Str. pneumoniae</i> —				<i>N. meningitidis</i> —			
Pneumonia	..	..	28	Meningitis	..	..	5
Pericarditis	..	..	2	Septicaemia	..	..	7
Endocarditis		..	2	<i>Bact. typhosum</i> —			
Laryngitis	..	..	1	Enteric fever	..	..	9
Septicaemia	..	..	1	<i>P. pestis</i> —			
<i>Treponema pallidum</i> —				Pneumonic plague	..	..	5
Meningo-encephalitis	..	..	16	Bubonic plague	..	..	1
Aortitis	..	..	11	Septicaemic plague	..	..	1
Cerebral arteritis	..	..	1	<i>Plasmodium falciparum</i> —			
Myocarditis	..	..	1	Malaria	..	..	7
<i>My. tuberculosis</i> —				<i>N. gonorrhoeae</i> —			
Phthisis	..	..	12	Stricture of urethra	..	..	5
Renal tuberculosis	..	..	1				
Adrenal tuberculosis	..	..	1				
Generalised tuberculosis		..	1				

MISCELLANEOUS INFECTIONS.

Bacillary dysentery	4	<i>Idiopathic Diseases—</i>	
Ancylostomiasis	2	Nephritis	23
Influenzal pneumonia	1	Portal cirrhosis	7
Relapsing fever	1	Toxic hepatitis	3
Meningitis	1	Megalocytic anaemia	2
Abscess of brain	1	Eclampsia	1
Femoral thrombosis	1	Cerebral thrombosis	1
Rheumatic endocarditis	1	Cerebral haemorrhage	1
Endocarditis, cause unknown	1	Atheroma of heart valves	1
Pyelitis and pneumonia	1	Diabetes	1
Epidemic encephalitis	1	Carcinoma of pancreas	2
Appendicitis	1	Carcinoma of bile ducts	1
Perisplenic abscess	1	Carcinoma of colon	1
Vincent's Angina	1	Glioma	2
Staphylococcal endocarditis	1	Sarcoma of ovary	1
Chronic pericarditis	1	Endothelioma of parotid	1
Infective arthritis	1	Melanoma of foot	1
Cholelithiasis	1		

INJURIES.

Head	..	..	20		Miscellaneous—continued.			
Chest	..	..	8		Ruptured uterus	..	..	1
Chest and abdomen	..	..	1		Uterine fibroid	..	..	1
Abdominal wound	..	..	4		Arsenical poisoning	..	..	1
Ruptured spleen	..	..	3		Alcoholic poisoning	..	..	1
Fractured spine	..	..	3		Poisoning by unknown irritant	..	..	1
Section of spine	..	..	2		Drowning	..	..	1
Cut throat	..	..	1		Hanging	..	..	1
Ruptured liver	..	..	1		Protein shock	..	..	1
Miscellaneous—					Hydrocephalus	..	..	1
Inanition	..	..	3					
Nutritional oedema	..	..	2		TOTAL	..	..	248
Strangulated hernia	..	..	2					

REMARKS.

272. The case of atheroma of the heart valves showed an unbroken layer of calcified material extending downwards from confluent plaques in the aorta as far as the mitral valve, which was grossly incompetent.

The case described as sarcoma of the ovary showed large bilateral ovarian tumours in a child aged three; secondary deposits were present in the maxilla and kidney. The structure of the tumour was that of a highly embryonic round-celled sarcoma, and it is, of course, possible to consider the growth as being of teratomatous origin.

RESEARCH.

273. A study of the haematological characteristics of local natives was carried out during the year by Dr. Hennessey (*vide* Section IX of this Report). This work indicates that where mean values and limits of normality are concerned native blood varies considerably from that of Europeans. *Inter alia*, the mean diameter of the native red cell obtained by measurement of about 8,600 erythrocytes was found to be in the neighbourhood of 7·88 m., and it appears likely that the low red cell counts common in local natives may be to some extent compensated for by a natural macrocytosis.

Chemical Section.

274. During the year 267 samples, etc., were received for examination.

275. The departments concerned and the nature of the material submitted, are tabulated hereunder:—

	No. of Samples.		No. of Samples.
<i>Medical Department—</i>		<i>Jinja Township Authority—</i>	
Blood	15	Cows' milk	16
Cerebro-spinal fluid	1		
Cows' milk	3	<i>Police Department—</i>	
Drugs	5	Blood stains	72
Faeces	1	Drugs	1
Gastric content	3	Material for identification	3
Human milk	3	Soap	2
Insecticide	1	Toxicological	30
Metal alloys	2		
Preserved food	1	TOTAL	108
Rectified spirit	4		
Soap	2	<i>Tender Board—</i>	
Sugar syrup	1	Cocoanut Oil	4
Toxicological	6	Mealie meal	4
Urine	9	Soap	11
TOTAL	57	TOTAL	19
<i>Kampala Township Authority—</i>		<i>Factories Board—</i>	
Cows' milk	49	Denatured Alcohol	1
Water	3		
		<i>Agricultural Department—</i>	
TOTAL	52	Water	2
		<i>Public Works Department—</i>	
<i>Water Department—</i>		Aluminium filter	1
Lime	6		
Water	1	<i>Kenya and Uganda Railways—</i>	
		Water	4
TOTAL	7		
		GRAND TOTAL	267

ANNUAL REPORT OF THE GOVERNMENT DENTAL SURGEON FOR 1936.

276. The treatment of officials, European and Asiatic, is shown in the following tables:—

(1)	Appointments	..	..	..	..	1,740
(2)	The following conditions were treated—					
	Caries simplex	..	..	..	..	691
	Extractions	..	..	..	..	386
	Pyorrhoea	..	..	..	..	46
	Periodontitis	..	..	..	..	47
	Abscess	..	..	..	..	37
	Erosion	..	..	..	..	58
	Gingivitis	..	..	..	..	22
	Pulpitis	..	..	..	..	29
(3)	Conservation work—					
	Silver amalgam	..	..	..	..	453
	Synthetic porcelain	..	..	..	..	207
	Oxyphosphate	..	..	..	..	20
	Zinc oxide	..	..	..	..	114
	Copper cements	..	..	..	..	20
	Carbolised resin dressings	..	..	..	..	245
	Scalings	..	..	..	..	261
	Zinc Chloride applications	..	..	..	..	127
	Gold inlays	..	..	..	..	29
(4)	Prosthetic work—					
	Dentures	..	..	..	..	48
	Repairs to dentures	..	..	..	..	64
	Pivots	..	..	..	..	21
(5)	The following outstations were visited—					
	Jinja, Mbale, Fort Portal, Mbarara, Masindi and Masaka.					

ANNUAL REPORT OF THE GOVERNMENT ENTOMOLOGIST FOR 1936.

Depletion of staff owing to illness and leave considerably curtailed the entomological work performed for the Medical Department during 1936.

Tsetse Surveys.

Surveys covering a very considerable proportion of Gulu district were requested by the Administration and occupied practically the whole time of the medical side of the entomological section during the year. About three-quarters of the whole were surveyed. Fly counts were made at approximately half-mile intervals along the course of the streams, those places which appeared to be the most suitable for occurrence of fly being chosen. In addition, a look-out was always kept for fly when walking over the ridges, especially in woodland areas, and searches were made in a number of places when true forest occurred away from streams. With the occasional exception of fly which had obviously followed the party no *G. palpalis* were ever found away from the streams. Outstanding points of the survey were (a) the low density of *G. palpalis* in most parts of the areas surveyed—seldom as high as six (of both sexes) per boy hour. Carpenter considered that a density of fifteen males per boy hour was necessary to maintain an epidemic of sleeping sickness; (b) the wide distribution of *G. palpalis* in very low concentration in the areas to the west of the Minakulu-Atiak road and (c) the presence of *G. morsitans* in some numbers in the northern part of the area east of the road (east of the river Unyama). A further point of considerable interest was the discovery of *G. palpalis* in small numbers along a stretch of stream which is practically treeless but is margined by very tall elephant-grass which almost forms a roof over the stream.

The standard clearings for fords and watering-places in Gulu district were found to be adequate, but the danger of inadequate clearings was demonstrated by the fact that on all the streams examined concentration of *G. palpalis* was higher at points where there were natural breaks in the tree-fringe than where the fringe was continuous. In other words an inadequate clearing is considerably worse than none. Old clearings which had been abandoned for some years were encountered on several occasions; these remained in surprisingly good condition but were rendered inefficient by the growth of tall grass and a few bushes.

In a very large proportion of the areas surveyed the concentration of fly was not considered to be sufficiently high to render them uninhabitable provided that suitable precautions are taken.

The work was very seriously hampered by the absence of reliable maps of the greater part of the district.

Rats, Fleas and Plague.

The observations on the relation between plague and cotton which were in progress last year were continued. Observations on carriage of rats in bags of seed-cotton, breeding of fleas in dust from cotton-stores, grain-stores and provision-shops, and a few further feeding-experiments

were undertaken, but had not been completed by the end of the year. There is no evidence of a correlation between cotton and plague but failure to clean ginneries and cotton-stores adequately at the end of the season may involve danger of increasing the incidence.

The Gulu tsetse-surveys offered an opportunity of carrying out a very inadequate survey of rats and fleas in the district. *Rattus rattus* appears to be absent from almost the whole of the district, but is present in the south-east (eastern part of Paranga County). The only *Xenopsylla* obtained was *X. cheopis*, which has a wide distribution in the district. This has special interest as tending to confirm Dr. Barrett's suggestion that in parts of northern Uganda and in the Nakuru district of Kenya this species is indigenous, whereas in most of East Africa it is a comparatively recent introduction. The western part of Paranga County was not investigated.

Two young male ferrets were imported from England for experimental use in the destruction of rats in godowns and stores. They show no sign so far of being adversely affected by the climate, but it has not yet been possible to train the animals or to test their value in rat-control.

Mosquitoes.

A distribution-survey of *Aedes aegypti* has been carried out from material submitted by Medical Officers. The species occurs in every station from which material has been received.

At the request of the Senior Botanist a brief mosquito-survey of the environs of Bukalasa Agricultural Experiment Station was undertaken.

A brief survey of Bubilabi Ridge (proposed as a new site of Mbale station) was also carried out. *A. funestus*, *A. gambiae*, *A. marshalli* and *A. demeilloni* (the first three of which are proved vectors of malaria) were all captured as larvae. A survey of adult mosquitoes in huts and houses was carried out. The first two species were found abundantly in huts and *A. marshalli* was found in some numbers in the rest-house. The suggestion to transfer Mbale to Bubilabi was subsequently abandoned as a result of an examination of bloods and spleens carried out by the District Medical Officer.

Education.

Lango Welfare Exhibition.—About a month was occupied in the preparation of exhibits, apart from the actual period of the exhibition. The exhibits proved very attractive to the natives and were the subject of many intelligent questions.

Courses on Mosquito Work.—A class of twelve African Sanitary Inspectors was given instruction in medical entomology during the second quarter of the year; they were also given special training in mosquito work during December. In addition, at the request of the Railway authorities at Jinja, an African employed by them was given three weeks' training in anti-mosquito work.

Miscellaneous.

Specimens of mosquitoes, mosquito-larvae, fleas and tsetse-flies sent in by Medical Officers have been determined.

Publication.

Mosquitoes of the Ethiopian Region. I. Larval Bionomics of Mosquitoes and Taxonomy of Culicine Larvae, by G. H. E. HOPKINS, published by the British Museum.

EXAMINATION FOR FIRST YEAR HEALTH ORDERLIES HELD IN NOVEMBER, 1936.

Hygiene—Part I.

All questions to be answered. 25 marks for each question.

1. Make a neat sketch of a lift pump and explain the action of such a pump. What are the advantages of raising water by such means?
2. What are the best sources of drinking water? What sources of water are dangerous?
3. Describe a system of refuse removal and disposal suitable for a small village.
4. What is a Public Health Nuisance? How do we abate such a nuisance?

Hygiene—Part II.

All questions to be answered. 25 marks for each question.

1. Explain the dangers of overcrowding.
2. Describe briefly how a plant breaths and explain the importance of this as it affects man.
3. How is air deviated? and how do we purify such air?
4. Describe the double bucket system of nightsoil removal.

Drawing.

Marks will be awarded as follows:—

25 marks for suitability of design.

25 marks for accuracy of measurements.

25 marks for building construction details.

Draw a plan, sections, and elevation of a house suitable for an African Sanitary Inspector.

Building Construction and Mensuration.

All questions to be answered. 25 marks for each question.

1. Describe the characteristics of a good brick. What is meant by bond in brickwork? Give sketches of the usual bonds which are used.
2. Describe the process of making bricks. What nuisances may arise during the process.
3. Calculate the areas of the following figures:—
 - (a) A square having a diagonal of 20 feet.
 - (b) A circle having a radius of 20 feet.
 - (c) A triangle (equilateral) having a base of 20 feet.
4. Name the principal points of a good site for a dwelling house.

Food Inspection.

All questions to be answered. 25 marks for each question.

1. State in detail the rules you would endeavour to carry out to secure to the consumers a pure supply of milk, having reference to methods of milking, storing, and distributing such milk.

2. Describe the post-mortem signs of Tuberculosis in an Ox. Give the differences between Localised Tuberculosis and Generalised Tuberculosis in the carcase of an Ox.

3. In what animal is the parasite *Cysticercus Bovis* found? Give the life history of the parasite. How would you examine a carcase to ascertain the presence of the parasite? How would you dispose of an infected carcase?

4. Describe in detail how you would inspect the carcase of an ox, giving the order in which the various parts should be examined, and any disease you would look for.

Appendix III.

PROPOSED SCHOOL BUILDING RULES.

1. These Rules may be cited as the School Building Rules, 1936, and shall apply to all schools and school dormitories erected in the Uganda Protectorate after 1st July, 1936, and to all school dormitories used as such after 1st July, 1937. All schools erected prior to 1st July, 1936, shall be altered to bring them into conformity with these Rules as soon as possible.

2. Every person who shall erect or maintain a school shall cause each class-room to be efficiently lighted and cross-ventilated by openings into the external air or on to an open verandah and to be of sufficient dimensions so as to provide suitable accommodation for pupils educated therein.

3. No new class-room shall have a floor space of less than 200 square feet or accommodate more than 40 children.

4. No new class-room shall have a length or breadth of less than 14 feet.

5. The minimum floor space per scholar in any class-room shall be $12\frac{1}{2}$ square feet.

6. No class-room shall have a mean height measured from floor to ceiling of less than 10 feet.

7. In any hall provided at any school for the occasional gathering together of pupils the amount of floor space per scholar shall be 5 square feet.

8. Lighting and ventilation openings provided for any class-room shall be equal to not less than one-eighth of the floor area and all windows where provided shall be made to open.

9. All windows or openings shall, where reasonably possible, be extended to within 12 inches of the ceiling.

10. Where possible the main lighting of any room shall be so placed that the light falls on the left of the pupils.

11. Where windows, glazed or otherwise, are provided ventilation openings so constructed as to be kept permanently open shall be provided to the ratio of one square foot to every 50 square feet of floor area.

Ventilation openings should always be provided on opposite walls opening on to the external air.

12. Floors of class-rooms shall be so made that they can easily be cleansed. Where impervious floors are not provided, floors shall be of hard rammed earth suitably maintained and freshly daubed with swamp sand or cattle-manure at least once weekly.

13. Every school shall be provided with a sufficient supply of wholesome drinking water at all times during school hours. Not less than one pint shall be available for each pupil per day. Where a piped supply is not available the water shall be provided in a clean receptacle and shall be accessible without danger or contamination of the supply.

14. All closet accommodation shall be of a type approved by the Health Department and if not of the water closet type shall be provided in a building or buildings completely separated from the main school building and separate accommodation shall be provided for the different sexes. The number of closets provided shall be in the following ratio:—

Under 8 scholars	...	1.	Under 100 scholars	...	6.
„ 18 „	...	2.	„ 150 „	...	8.
„ 30 „	...	3.	„ 200 „	...	10.
„ 50 „	...	4.	„ 300 „	...	14.
„ 70 „	...	5.	„ 400 „	...	18.

In the case of boys provided suitable and sufficient urinal accommodation is made, the number of closets required may be reduced by 50%.

Separate and sufficient accommodation shall be provided for teachers. All closets provided shall be maintained at all times in a clean and sanitary condition.

15. There shall be provided in connection with any school and if possible adjacent to it sufficient open space, for use as a play-ground.

16. In any school where scholars are retained as boarders there should be provided suitable and sufficient accommodation for the boarders in addition to the class-rooms provided for their use.

17. Dormitories or rooms for sleeping purposes shall be provided for boarders and the minimum of floor space per boarder shall be as follows:—

If under 12 years	...	...	30 square feet.
If over 12 years	...	...	40 square feet.

18. Separate accommodation shall be provided for each sex.

19. The storage of foodstuffs in rooms used for sleeping purposes is prohibited.

20. Where boarders are accommodated there shall be provided separate accommodation for feeding, allowing a minimum of 8 square feet for each scholar to be accommodated. Feeding rooms shall only communicate with sleeping quarters by a well ventilated passage.

21. Every room used for sleeping or living purposes in connection with a boarding establishment shall be effectively lighted and ventilated.

(a) Ventilation shall be provided by windows or other openings equal to one-eighth of the floor area and where windows are provided they shall all be capable of being fully opened.

(b) Ventilation shall be provided by permanent ventilation openings placed in opposite walls and so made that they cannot be closed. Ventilation openings provided to any room shall be in the proportion of one square foot to every fifty square feet of floor area.

22. In any school boarding establishment provision should be made for washing and bathing to the satisfaction of the Medical Officer of Health and there shall be available a sufficient water supply for all purposes.

23. In any school boarding establishment a sufficient properly balanced diet shall be provided to the satisfaction of the Medical Officer of Health.

24. Kitchen accommodation shall be provided in every school boarding establishment of a capacity and structure to the satisfaction of the Medical Officer of Health.

25. Floors of all buildings provided for every school boarding establishment shall either be impervious or of hard rammed earth. If floors are of hard rammed earth they shall be freshly daubed with swamp sand or cattle manure at least once weekly.

26. There shall be provided for every school boarding establishment sufficient closet accommodation for all inmates and these closets shall be of a type approved by the Medical Department:—

(a) Where closet accommodation is not of the water closet type, these shall be provided in a building or buildings separate from other buildings. The number of closets provided shall be in the ratio laid down in Rule 14.

(b) Separate accommodation shall be provided for the different sexes.

(c) 10% of closets provided shall be at a distance not greater than 60 feet from sleeping premises and shall be specially reserved for night use. There shall be at least one closet provided in connection with a school boarding establishment for night use.

(d) Sufficient and separate closet accommodation shall be provided for teachers.

(e) All closets provided shall be maintained at all times in a clean and sanitary condition.

TABLE I.

SANCTIONED ESTABLISHMENT, 1936.

The establishment for 1936 was as follows:—

ADMINISTRATIVE DIVISION.

- Director of Medical Services.
- Deputy Director of Medical Services.
- Assistant Director of Medical Services.
- Office Superintendent.
- Lady Stenographer and Confidential Secretary.
- European Storekeeper and Pharmacist.
- Asiatic Assistant Storekeeper.
- 11 Asiatic Clerks.

EXECUTIVE DIVISION.

- 5 Senior Medical Officers.
- 31 Medical Officers.
- 2 European Hospital Superintendents.
- 3 European Assistant Superintendents and Dispensers.
- 1 Instructor of Hygiene.
- 14 European Sanitary Inspectors.
- 1 Senior Sub-Assistant Surgeon.
- 11 Sub-Assistant Surgeons.
- 1 Asiatic Assistant Pharmacist.
- 2 Asiatic Sanitary Inspectors.
- 2 Asiatic Cooks for European and Asiatic Hospitals.

NURSING STAFF.

- 1 Lady Superintendent of Nurses.
- 1 Senior Nursing Sister.
- 1 Lady Steward.
- 31 Nursing Sisters.
- 5 Asiatic Nurses and Probationers.

LABORATORIES DIVISION.

- 1 Senior Bacteriologist.
- 2 Assistant Bacteriologists.
- 1 Analytical Chemist.
- 3 European Laboratory Assistants.

SPECIAL APPOINTMENTS.

- 1 Medical Superintendent and Principal, Medical School.
- 1 Surgical Specialist.
- 1 Dental Surgeon.

AFRICAN ESTABLISHMENT.

- 1 African Laboratory Assistant.
- 28 Senior African Medical Assistants. (African Civil Service).
- 4 African Clerks. (African Civil Service).

A varying number of African staff, including nursing orderlies, laboratory orderlies, health orderlies, midwives, dispensers, clerks, cooks, dhobies, nurses, and also menial staff at all hospitals.

TABLE II.

ACTUAL EXPENDITURE FOR THE YEAR.

	£	shs.	cts.
PERSONAL EMOLUMENTS	98,864	12	23
OTHER CHARGES :—			
Stores, furniture and equipment	24,225	19	27
Upkeep of hospitals and Medical School	7,876	13	20
Control of epidemic and endemic diseases	5,765	8	44
Promotion of Public Health and infant welfare	576	1	11
Leprosy relief measures	1,472	19	20
Miscellaneous services (including motor and bicycle allowances, local travelling and transport, travelling allowances, maintenance of motor vehicles, water charges, telephone rentals, upkeep of hospital grounds, courses of instruction to medical staff, uniforms for African staff, etc.)	19,752	19	26
	158,534	12	71
GRANTS TO MISSIONS :—			
Contribution to Lady Coryndon Maternity School and grants to Missions for maintenance of midwifery centres and midwives	2,260	0	00
Grants to Church Missionary Society for training African Nursing Sisters	1,100	0	00
	3,360	0	00
SPECIAL EXPENDITURE :—			
Anti-malarial measures—afforestation	1,352	16	99
Yellow Fever Investigations	1,090	0	31
Replacement of three worn out motor vans	427	19	60
	2,870	16	90

REVENUE.

The total amount of revenue collected as hospital fees, sales of medicines and surgical stores, registration fees and re-imbursements on account of medical services was as follows:—

	£	shs.	cts.
Hospital fees, sales of medicines and surgical stores registration fees	11,238	18	94
Re-imbursements from Kenya and Uganda Railways and Harbours on account of medical and sanitary services	1,278	1	67
Contribution from Lukikos towards cost of medical attendants and stores for sub-dispensaries	8,537	0	00
	21,054	0	61

TABLE III.

RETURN OF STATISTICS OF POPULATION.

The only statistics available are embodied in the Blue Book.

TABLE IV.

METEOROLOGICAL RETURN.

All available information under this head is embodied in the Blue Book.

Return of Diseases and Deaths for the Year 1936.

DISEASES.	TABLE V.					TABLE VI.
	Remaining in Hospital at end of 1935.	Yearly Admissions.	Total Cases Treated.	Total Deaths.	Remaining in Hospital at end of 1936.	
I. EPIDEMIC, ENDEMIC, AND INFECTIOUS DISEASES.	1. Enteric Group—					
	(a) Typhoid Fever	6	68	74	20	3
	(b) Paratyphoid A.	..	..	..	..	..
	(c) Paratyphoid B.	..	2	2	..	..
	(d) Type not defined	..	3	3	..	..
	2. Typhus	..	3	3	..	..
	3. Relapsing Fever	7	278	285	19	2
	4. Undulant Fever	..	4	4	..	..
	5. Malaria—					
	(a) Tertian	4	311	315	5	1
	(b) Quartan	5	290	295	7	7
	(c) Aestivo-autumnal	45	2,551	2,596	108	34
	(d) Clinical	20	1,294	1,314	15	30
	(e) Mixed Infections	1	133	134	4	1
	(f) Cachexia	..	8	8	3	..
	(g) Blackwater	..	31	31	6	..
	6. Smallpox	..	25	25	5	..
	Alastrim	..	..	..	..	..
	7. Measles	..	44	44	..	..
	8. Scarlet Fever	..	2	2	..	1
	9. Whooping Cough	..	140	140	14	..
	10. Diphtheria	..	3	3	2	1
	11. Influenza	..	882	890	6	..
	12. Miliary Fever	8	..	..	..	9
	13. Mumps	..	66	66	..	..
	14. Cholera	..	..	..	..	1
	15. Epidemic diarrhoea	..	41	41	1	..
	16. Dysentery—					
	(a) Amoebic	6	230	236	16	2
	(b) Bacillary	1	192	193	21	3
	(c) Undefined or due to other causes	1	164	165	12	4

TABLES V AND VI—continued.

TABLE V.						TABLE VI.	
DISEASES.						Remaining in Hospital at end of 1935.	Remaining in Hospital at end of 1936.
DISEASES.						Yearly Admissions.	Total Cases Treated.
DISEASES.						Total Deaths.	All Cases including both In- and Out-Patients.
38. Syphilis—							
(a) Primary ..	..	..	26	371	397	..	2,714
(b) Secondary ..	..	..	20	502	522	..	9,523
(c) Tertiary ..	..	..	29	412	441	24	11,900
(d) Hereditary ..	..	..	6	133	139	36	4,585
(e) Period not indicated	..	..	..	10	10	..	62
(f) Latent ..	..	..	..	5	5	..	237
39. Soft Chancre ..	..	..	5	259	264	..	1,178
40. A.—Gonorrhoea and its complications	..	..	33	666	699	5	5,647
B.—Stricture ..	..	..	7	223	230	8	359
C.—Stricture and Extravasation ..	..	..	4	71	75	21	77
D.—Gonorrhoeal Ophthalmia	..	..	..	21	21	..	45
E.—Gonorrhoeal Arthritis	..	..	2	54	56	..	90
F.—Salpingitis, etc. ..	..	..	2	89	91	..	236
G.—Granuloma Venereum	..	..	2	11	13	..	15
41. Septicæmia ..	..	..	3	55	58	35	56
42. Other Infectious Diseases	..	..	..	11	11	1	219
II. GENERAL DISEASES NOT MENTIONED ABOVE.							
43. Cancer or other malignant Tumours of the Buccal Cavity ..	..	..	..	1	1	..	3
44. Cancer or other malignant Tumours of the Stomach or Liver..	..	..	1	15	16	8	21
45. Cancer or other malignant Tumours of the Peritoneum Intes-	..	..	1	3	4	2	3
tines, Rectum ..	..	..	..	8	8	..	55
46. Cancer or other malignant Tumours of the Female Genital	..	..	..	9	9	1	9
Organs ..	..	..	..	8	8	1	9
47. Cancer or other malignant Tumours of the Breast ..	..	..	..	37	39	13	51
48. Cancer or other malignant Tumours of the Skin ..	..	..	2	115	120	2	195
49. Cancer or other malignant Tumours of organs not specified	..	..	5	16	16	..	538
50. Tumours non-malignant	..	..	..	43	48	1	3,498
51. Acute Rheumatism ..	..	..	5	201	208	..	18,478
52. Chronic Rheumatism ..	..	..	7	4	4	..	130
52A. Myalgia ..	..	..	..	1	1	..	1
53. Scurvy (including Barlow's Disease)	..	..	..	2	2	1	3
54. Pellagra ..	..	..	..	..	..	..	..
55. Beri-Beri ..	..	..	..	..	..	..	..

TABLES V AND VI—continued.

56. Rickets	..	..	..	..	4	4	..	..	17
57. Diabetes (not including Insipidus)	..	..	..	..	5	5	..	..	11
58. Anæmia—									
(a) Pernicious	2	..	..	..	35	37	..	..	88
(b) Other Anæmias and Chlorosis	4	..	..	..	35	39	2	..	222
59. Diseases of the Pituitary Body	..	..	..	..	..	..	..	..	..
60. Diseases of the Thyroid Gland—									
(a) Exophthalmic Goitre	..	..	..	..	1	1	..	..	7
(b) Other diseases of the Thyroid Gland, Myxœdema	..	..	..	..	2	2	1	..	5
(c) Others	..	..	..	..	1	1	1	..	5
61. Diseases of the Para-Thyroid Glands	..	..	..	..	..	..	..	..	..
62. Diseases of the Thymus	..	..	..	..	..	..	..	..	..
63. Diseases of the Supra-Renal Glands	..	..	..	..	..	..	..	..	..
64. Diseases of the Spleen	..	..	..	..	51	51	1	4	1,482
65. Leukæmia—									
(a) Leukæmia	..	..	..	..	4	4	1	..	4
(b) Hodgkin's Disease	1	..	..	..	8	9	1	..	8
66. Alcoholism	..	..	..	..	7	7	..	..	32
67. Chronic poisoning by mineral substances (lead, mercury, etc.)	..	..	..	..	9	9	..	..	12
68. Chronic poisoning by organic substances (morphia, cocaine, etc.)	..	..	..	..	1	1	..	..	1
69. Other General Diseases—									
Auto-intoxication	..	..	..	..	5	5	..	..	10
Purpura Hæmorrhagica	..	..	..	..	..	..	..	..	..
Hæmophilia	..	..	..	..	..	..	..	..	2
Diabetes Insipidus	..	..	..	..	1	1	..	..	6
Others	..	..	..	..	2	2	..	..	279
III. AFFECTIONS OF THE NERVOUS SYSTEM AND ORGANS OF THE SENSES.									
70. Encephalitis (not including Encephalitis Lethargica)	..	..	..	..	8	8	7	1	8
71. Meningitis (not including Tuberculous Meningitis or Cerebro-spinal Meningitis)	1	..	..	..	33	34	27	..	35
72. Locomotor Ataxia	..	..	..	..	..	..	..	..	..
73. Other affections of the Spinal Cord	..	..	..	..	9	9	5	2	28
74. Apoplexy—									
(a) Hæmorrhage	..	..	..	..	6	6	6	..	13
(b) Embolism	..	..	..	..	..	..	..	..	..
(c) Thrombosis	..	..	..	..	9	9	6	2	12
75. Paralysis—									
(a) Hemiplegia	3	..	..	..	36	39	5	2	55
(b) Other Paralyses	2	..	..	..	48	50	7	3	107
76. General paralysis of the Insane	..	..	..	..	6	6	..	..	8

TABLES V AND VI—continued.

DISEASES.	TABLE V.					TABLE VI.
	Remaining in Hospital at end of 1935.	Yearly Admissions.	Total Cases Treated.	Total Deaths.	Remaining in Hospital at end of 1934.	
						All Cases including both In- and Out-Patients.
77. Other forms of Mental Alienation	5	34	39	5	..	63
78. Epilepsy	1	38	39	1	1	112
79. Eclampsia Convulsions (non-puerperal) 5 years or over	..	..	..	..	..	3
80. Infantile Convulsions	..	2	2	..	..	2
81. Chorea	..	..	..	..	..	..
82. A.—Hysteria	..	8	8	..	..	17
B.—Neuritis	..	7	7	..	..	148
C.—Neurasthenia	..	1	1	..	..	7
83. Cerebral Softening	..	1	1	1	..	1
84. Other affections of the Nervous System, such as Paralysis Agitans, Headache, Neuralgia, Insomnia, etc.	1	77	78	..	2	7,138
85. Affections of the Organs of Vision—						
(a) Conjunctivitis	5	131	136	..	2	9,635
(b) Trachoma	..	112	112	..	1	2,519
(c) Tumours of the Eye	..	6	6	..	..	23
(d) Iritis	..	25	25	..	1	297
(e) Other affections of the Eye	1	122	123	..	6	2,289
86. Affections of the Ear or Mastoid Sinus—						
(a) Otitis Media	4	105	109	1	1	3,651
(b) Others	2	40	42	2	2	2,239
IV. AFFECTIONS OF THE CIRCULATORY SYSTEM.						
87. Pericarditis	..	3	3	2	..	5
88. Acute Endocarditis	2	11	13	5	..	15
89. Angina Pectoris	..	..	..	..	..	14
90. Other Diseases of the Heart—						
(a) Valvular—						
Mitral	2	53	55	10	2	144
Aortic	..	17	17	2	2	40
Tricuspid	..	..	..	..	..	1
Pulmonary	..	..	..	..	..	..
Mixed or Unspecified	2	14	16	4	1	42
(b) Myocarditis—						
D.A.H.	2	54	56	23	1	211
Others	2	13	15	4	1	92

TABLES V AND VI—continued.

TABLE VI.		TABLE V.				
All Cases including both In- and Out-Patients.		Remaining in Hospital at end of 1934.	Total Deaths.	Total Cases Treated.	Yearly Admissions.	Remaining in Hospital at end of 1935.
VI. DISEASES OF THE DIGESTIVE SYSTEM.						
108. A.—Diseases of Teeth or Gums—						
Caries	3,568	..	..	32	32	..
Pyorrhoea	441	1	..	13	13	..
Others	335	..	..	22	22	..
B.—Other affections of the Mouth—						
Stomatitis	1,807	..	4	38	38	..
Glossitis	53	..	1	4	4	..
Others	193	..	2	8	7	1
109. Affections of the Pharynx or Tonsils—						
Tonsillitis	1,899	3	1	132	131	1
Pharyngitis	1,058	..	..	27	26	1
Others	348	..	2	10	10	..
110. Affections of the Esophagus						
111. A.—Ulcer of the Stomach						
B.—Ulcer of the Duodenum	2	..	..	..	..	..
112. Other affections of the Stomach—						
Gastritis	8	..	1	2	2	..
Dyspepsia	6	..	1	3	2	..
Others	400	1	1	48	45	3
113. Diarrhoea and Enteritis—						
Under two years of age	5,731	..	..	89	88	1
114. Diarrhoea and Enteritis—						
Two years of age and over	1,168	..	..	18	18	..
Colitis	1,955	..	5	66	64	2
Ulceration	4,210	3	10	138	133	5
114A. Sprue						
115. Ancylostomiasis						
116. Diseases due to Intestinal Parasites—						
(a) Cestoda (Taenia)	218	1	1	16	16	..
(b) Trematoda (Flukes)	7	..	..	1	1	..
(c) Bilharzia	..	..	..	..	..	..
(d) Nematoda (other than Ancylostoma)—	1,940	21	15	550	538	12
Ascaris	1,990	..	..	115	113	2
Trichocephalus dispar.	142	..	..	58	58	..
	808	4	1	194	193	1
	39	..	..	34	34	..

TABLES V AND VI—continued.

DISEASES.	TABLE V.					TABLE VI.
	Remaining in Hospital at end of 1935.	Yearly Admissions.	Total Cases Treated.	Total Deaths.	Remaining in Hospital at end of 1934.	All Cases including both In- and Out-Patients.
134. Diseases of the Urethra— (a) Stricture	..	13	13	..	..	29
(b) Other	..	7	7	..	1	11
135. Diseases of the Prostate— Hypertrophy	..	2	2	1	..	2
Prostatitis	..	1	1	..	..	1
136. Diseases (non-Venereal) of the Genital Organs of Man— Epididymitis	..	39	39	..	1	126
Orchitis	..	53	53	1	1	282
Hydrocele	8	58	66	..	1	171
Ulcer of Penis	3	21	24	..	2	42
Varicocele	..	2	2	..	..	3
Others	4	146	150	..	11	290
137. Cysts or other non-malignant Tumours of the Ovaries	..	19	19	3	1	49
138. Salpingitis— Abscess of the Pelvis	..	54	54	..	..	69
139. Uterine Tumours (non-malignant)	1	44	45	2	6	50
140. Uterine Hæmorrhage (non-puerperal)	..	4	4	..	..	21
141. A.—Metritis	..	24	24	..	..	73
B.—Other affections of the Female Genital Organs— Displacements of Uterus	1	12	13	..	..	26
Amenorrhœa	..	11	11	..	..	98
Dysmenorrhœa	..	12	12	..	..	200
Leucorrhœa	..	25	25	..	..	60
Others	2	23	25	..	1	100
142. Diseases of the Breast (non-puerperal)— Mastitis	1	31	32	..	1	243
Abscess of Breast	2	8	10	..	..	75
Others	..	..	..	..	..	3
VIII. PUERPERAL STATE.						
143. A.—Normal Labour	17	1,364	1,381	1	11	1,497
B.—Accidents of Pregnancy— (a) Abortion or Miscarriage	9	253	262	8	6	386
(b) Ectopic Gestation	..	5	5	..	..	5
(c) Other accidents of Pregnancy	1	112	113	6	2	160

TABLES V AND VI—continued.

C.—Ante-Natal Supervision	..	..	4	198	202	..	6	8,559
144. Puerperal Hemorrhage ..	..	..	..	..	..	..	..	..
145. Other accidents of Parturition	..	..	2	109	111	27	2	127
146. Puerperal Septicæmia ..	..	..	1	15	16	9	..	26
147. Phlegmasia Dolens ..	..	..	..	..	..	..	..	..
148. Puerperal Eclampsia ..	..	..	..	..	..	..	..	3
149. Sequelæ of Labour ..	..	..	3	55	58	23	1	55
150. Puerperal affections of the Breast	..	..	..	3	3	..	..	15
IX. AFFECTIONS OF THE SKIN AND CELLULAR TISSUES.								
151. Gangrene ..	..	..	2	18	20	6	..	23
152. Boil ..	..	..	..	52	52	..	..	2,374
Carbuncle ..	..	..	..	18	18	..	..	64
153. Abscess ..	..	..	23	619	642	20	22	2,769
Whitlow and Onychia ..	..	..	4	130	134	..	11	2,404
Cellulitis ..	..	..	8	284	292	7	12	2,929
154. A.—Tinea ..	..	..	..	18	18	..	..	943
B.—Scabies ..	..	..	2	126	128	..	5	13,528
155. Other Diseases of the Skin—	..	..	..	..	..	..	..	..
Erythema ..	..	..	..	2	2	..	..	18
Urticaria ..	..	..	..	12	12	..	..	499
Eczema ..	..	..	..	25	25	..	3	789
Herpes ..	..	..	..	9	9	..	1	193
Psoriasis ..	..	..	..	4	4	..	..	18
Elephantiasis ..	..	..	7	78	85	3	2	427
Myiasis ..	..	..	..	2	2	..	..	6
Chigoes ..	..	..	3	25	28	..	3	210
Cutaneous Leishmaniasis	..	..	..	..	..	..	..	2
Ulcers ..	..	..	163	2,021	2,184	20	167	26,365
Others ..	..	..	17	128	145	2	14	4,625
X. DISEASES OF BONES AND ORGANS OF LOCOMOTION (OTHER THAN TUBERCULOUS).								
156. Diseases of Bones—	..	..	2	48	50	1	7	75
Osteitis ..	..	..	..	..	..	..	..	..
Periostitis ..	..	..	2	8	10	..	..	91
Others ..	..	..	2	25	27	1	2	37
157. Diseases of Joints—	..	..	4	132	136	..	9	851
Arthritis ..	..	..	3	71	74	..	4	714
Synovitis ..	..	..	..	10	10	..	1	124
Others ..	..	..	..	..	..	..	..	..

TABLES V AND VI—continued.

DISEASES.	TABLE V.					TABLE VI.
	Remaining in Hospital at end of 1935.	Yearly Admissions.	Total Cases Treated.	Total Deaths.	Remaining in Hospital at end of 1934.	All Cases including both In- and Out-Patients.
158. Other Diseases of Bones or Organs of Locomotion—						
(a) Teno-Synovitis	..	3	3	..	..	25
(b) Ganglion	..	12	12	..	1	212
(c) Others	..	6	6	..	..	54
XI. MALFORMATIONS.						
159. Malformations—						
Hydrocephalus	..	5	5	1	..	6
Hypospadias	..	..	..	..	..	..
Spina Bifida	..	1	1	..	..	1
Others	1	4	5	..	..	4
XII. DISEASES OF INFANCY.						
160. Normal Living Babies	10	1,173	1,183	2	12	1,432
160A. Congenital Debility	..	10	10	4	..	25
161. Premature Birth	..	45	45	20	3	48
162. Other affections of Infancy	1	27	28	13	..	38
162A. Babies Still-Born	..	..	..	..	..	155
163. Infant Neglect (infants of three months or over)	..	3	3	2	..	3
163A. Post-Natal Supervision	7	26	33	..	..	10,065
XIII. AFFECTIONS OF OLD AGE.						
164. Senility—						
Senile Dementia	..	13	13	2	..	14
XIV. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.						
165. Suicide by Poisoning	..	..	..	..	..	..
166. Corrosive Poisoning (intentional)	..	2	2	1	..	4
167. Suicide by Gas Poisoning	..	..	..	..	..	..
168. Suicide by Hanging or Strangulation	..	1	1	1	1	4
169. Suicide by Drowning	..	..	..	..	..	..
170. Suicide by Firearms	..	..	..	..	..	..
171. Suicide by cutting or stabbing Instruments	..	..	..	..	..	1
172. Suicide by jumping from a height	..	..	..	..	..	..

TABLES V AND VI—continued.

DISEASES.	TABLE V.					TABLE VI.
	Remaining in Hospital at end of 1935.	Yearly Admission.	Total Cases Treated.	Total Deaths.	Remaining in Hospital at end of 1934.	All Cases including both In- and Out-Patients.
XV. ILL-DEFINED DISEASES.						
204. Sudden Death (cause unknown)	..	..	..	..	..	..
205. A.—Diseases not already specified or ill-defined—						
Ascites	2	45	47	9	1	54
Edema	1	19	20	..	1	113
Asthenia	2	56	58	21	2	304
Shock	..	3	3	..	..	3
Hyperpyrexia	..	2	2	1	..	3
B.—Malingering	..	10	10	..	..	139
XVI. DISEASES, THE TOTAL OF WHICH HAVE NOT CAUSED 10 DEATHS, INCLUDING N.A.D. AND N.Y.D.	15	297	312	17	14	1,436
Total Sections I to XVI	..	..	..	..	..	378,793
206. Examinations	9	102	..	..	1	112,936
Dispensaries	..	..	..	..	..	594,841
GRAND TOTAL	1,088	31,077*	32,165*	1,833	1,044	1,086,570

* Does not include still-births.

